

Institutional audit

Goldsmiths' College

NOVEMBER 2009

© The Quality Assurance Agency for Higher Education 2009 ISBN 978 1 84979 044 4 All QAA's publications are available on our website www.qaa.ac.uk Registered charity numbers 1062746 and SC037786

Preface

The Quality Assurance Agency for Higher Education's (QAA) 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 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 Department for Education and Skills (now the Department for Innovation, Universities 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 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) approach to external quality assurance. At the centre of the process is an emphasis on students and their learning.

The aim of the revised 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* (FHEQ) 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 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 quality of provision of postgraduate research programmes
- 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 Goldsmiths' College (the College) in 2008-09 to carry out an Institutional audit.

The audit was combined with a scrutiny of the College for the purpose of making recommendations on degree awarding powers. 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 College offers on behalf of the University of London.

To arrive at its conclusions, the audit team spoke to members of staff throughout the College and to current students, and read a wide range of documents about the ways in which the College 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 United Kingdom (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 Goldsmiths' College is that:

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

Institutional approach to quality enhancement

Overall, the audit team found that the College's institutional approach to quality enhancement was informed by clear strategic direction and was well managed by the Learning and Teaching Quality Committee. The College has supported a number of significant initiatives to enhance the support for learning and assessment.

Postgraduate research students

The audit team found that the arrangements for postgraduate research students were appropriate and satisfactory, benefiting from a strong research environment, and that they met the expectations of the precepts of Section 1 of the *Code of practice for the assurance of academic quality and standards in higher education (Code of Practice)*.

Published information

The audit found that reliance could reasonably be placed on the accuracy and completeness of the information that the College 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 development at departmental level of detailed discipline-related assessment criteria, based on the College's generic criteria
- the constructive and systematic involvement of students in their contribution to the work of the College in planning, policy development and quality assurance
- the strategically targeted approach to the enhancement of student learning through the teaching fellowships scheme
- the College's initiatives to support innovative practice in student assessment
- the work of the Graduate School in providing cross-College support for postgraduate research and taught postgraduate students.

Recommendations for action

The audit team recommends that the College considers further action in some areas.

The team advises the College to:

- strengthen the College's arrangements for the timely appointment, and the briefing and support, of its external examiners
- review the proposed arrangements for external examiner involvement in decisions on awards for joint honours programmes, so as to ensure appropriate externality
- develop and document procedures for programme closure in accordance with the *Code of practice*
- strengthen the management of the annual programme review process so as to achieve full and timely compliance with the College's agreed procedures
- complete the development and implementation of the new framework for the management of standards and quality in collaborative provision.

It would be desirable for the College to:

- develop a more formalised and systematic way of making external examiner reports accessible to student representatives on a programme
- seek ways to achieve a more rapid implementation of the College's agreed strategies and policies, particularly at departmental level
- explore further the opportunities for greater consistency of operation and more effective use of supporting information in the work of examination boards
- specify and implement consistently the minimum level of training and support which postgraduate research students receive before they contribute to teaching
- establish a more comprehensive register for the recording of the College's collaborative partnerships.

Reference points

To provide further evidence to support its findings, the audit team investigated the use made by the College 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
- frameworks for higher education qualifications in England, Wales and Northern Ireland, and in Scotland
- subject benchmark statements
- programme specifications.

The audit found that, on the whole, the College 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, although it is recommended that it should develop and document procedures for programme closure in accordance with the *Code of practice*, published by QAA.

Report

1 An Institutional audit of Goldsmiths' College (the College/Goldsmiths) was undertaken in 2008-09 as a part of broader scrutiny of the work of the College in the context of making recommendations on degree awarding powers. The audit commenced in 2008, and the final round of meetings took place in March 2009. The purpose of the audit was to provide public information on the College's management of the academic standards of the awards that it delivers on behalf of the University of London and of the quality of the learning opportunities available to students.

2 The audit team comprised Professor J Baldock, Professor P Hodson and Professor D Meehan, auditors, and Ms N Evans, audit secretary. The audit was coordinated for QAA by Dr P J A Findlay, Assistant Director, Reviews Group.

Section 1: Introduction and background

3 The College was founded in 1891 as a technical and recreative institute by the Worshipful Company of Goldsmiths. In 1904, it was established by the University of London with the central aim of serving the people of south-east London. After amalgamating with the Rachel McMillan and St Gabriel's teacher training colleges in 1977, in 1988 Goldsmiths became a School, then College, of the University of London. The College was granted its Royal Charter in 1990. Goldsmiths has its own Charter and Statutes but is also required to operate in accordance with the Statutes and Ordinances of the University of London. At the time of the audit, the College was in the process of applying to the Privy Council for taught and research degree awarding powers of its own, which it may in the future choose to exercise independently of the University of London.

4 The College is situated on a single campus in New Cross, south-east London, with a complex estate spread across a number of buildings, both older and more recently built. In 2007-08, the College had a total of 7,621 students enrolled on higher education programmes (6,540 full-time equivalents), across programmes in the arts, media, social sciences, education and computing. These are shown by programme level and mode of study below:

Level	Full-time	Part-time	Total
Undergraduate	4,481	494	4,975
Taught postgraduate	1,392	570	1,962
Research postgraduate	415	269	684
Total	6,288	1,333	7,621

5 The College's Royal Charter defines its object as 'to advance knowledge, wisdom and understanding by teaching, study, public service and research, and to make available to the public the results of such research'. These intentions are supported by 11 strategic aims that are set out in the College's Strategic Plan. The aims include an emphasis upon the quality of the student experience, research, and equality and diversity. The mission of Goldsmiths is 'to offer a transformative experience, generating knowledge and stimulating self-discovery through creative, radical and intellectually rigorous thinking and practice'.

6 The Warden is the College's chief academic and administrative officer and chairs the Academic Board. The Warden is supported by a senior management team consisting of the three pro-wardens (one of whom is the Deputy Warden), the Registrar and Secretary, and the Director of Finance. The academic departments of the College are each line-managed by one of the prowardens. Support departments are managed by the Registrar and Secretary.

Developments since the last audit

The QAA's audit of the College in 2005 resulted in a judgement of broad confidence in 7 the soundness of the College's present and likely future management of the quality of its programmes and academic standards of its awards. The report noted features of good practice, particularly in relation to new developments and initiatives in learning and teaching, the College's quality agenda, and the important contribution of the support staff to the student experience. A number of recommendations were made in the report relating to the strengthening of quality systems and decision-making processes. The College adopted an explicit follow-up process to the recommendations of the 2005 audit. It has reviewed and restructured its committee system, and introduced major new strategies and procedures relating to learning and teaching. The audit team concluded that the College had responded fully to the recommendations of the 2005 audit report, with the exception of some aspects of the developing collaborative provision; these are discussed later in this report. In its consideration of the overall pattern of development in the College over the previous five years, the team formed the view that the strong commitment to consultation and collegiality which characterised the culture of Goldsmiths could at times contribute to undue delay in decision-making processes and in the implementation of agreed policy. It will be of benefit for the College to explore further ways in which it can more speedily bring about the management of change, while retaining its characteristic strengths. The team therefore recommends that the College seeks ways to achieve a more rapid implementation of its agreed strategies and policies, particularly at departmental level.

Section 2: Institutional management of academic standards

As a constituent member of the University of London, the College is empowered to introduce and withdraw programmes and to teach and examine for awards of the University. The College is required to provide to the University on an annual basis a set of documentation, including quality assurance procedures, and the University's Ordinances require such procedures to have regard for the *Code of practice*. The College has its own Charter and Statutes and these are consistent with the Regulations of the University of London. They place formal responsibility for the oversight of standards and quality with Academic Board. Much of the detailed work is delegated by Academic Board to the Learning and Teaching Quality Committee. This key committee is in turn supported in its work by the Programme Scrutiny Sub-Committee, the Standards Scrutiny Sub-Committee, the External System Sub-Committee and the Graduate School Board. The minutes of the Academic Board and its subcommittees' meetings, together with other documentation, provided the audit team with considerable evidence of the effectiveness of the University's policies and procedures for setting, maintaining and assuring academic standards.

9 Much of the management of examinations, student progress and quality assurance is delegated to the heads of the 15 academic departments, advised by their departmental boards. The key departmental committee dealing with management of standards and quality is the departmental learning and teaching committee. This committee reports both to its departmental board and to the College Learning and Teaching Quality Committee.

10 The principles and approach to quality and standards management are set out in the College's Learning, Teaching and Assessment Strategy. Detailed guidance on procedures is provided by a Quality Handbook. Routine monitoring of the implementation of the strategy is carried out by the Goldsmiths Learning Enhancement Unit and is overseen by the Learning and Teaching Quality Committee. The Learning Enhancement Unit coordinates staff development relating to learning and teaching, including the use of technology to support teaching. The Staff Development Unit coordinates other staff development.

11 The award of research degrees is formally the responsibility of the University of London, but many of the functions are delegated to the College and governed by its Code of Practice for Postgraduate Research Students. Collaborative provision by the College is subject to the College's framework and procedures for the management of quality set out in the Quality Handbook. 12 The College's processes for the development and approval of programmes, and setting standards, are clearly articulated and involve thorough and careful procedures and reporting at a number of levels. All new proposals are carefully scrutinised by the Programme Scrutiny Sub-Committee. The processes pay due regard to external reference points, such as *The framework for higher education qualifications in England, Wales and Northern Ireland* (FHEQ), subject benchmark statements, the *Code of practice for the assurance of academic quality and standards in higher education (Code of practice)*, and the requirements of professional, statutory and regulatory bodies. The College involves independent external advisers systematically within course planning, approval and review. All approved programmes in the College are described in detail through programme specifications.

13 Programme specifications and course templates include clearly defined learning outcomes and the audit team noted the mapping of these learning outcomes between the programme and course components at the design stage, ensuring the design integrity of the overall award offered. The College has developed generic grading descriptors for all undergraduate programmes, onto which subject specific criteria can be mapped to promote harmonisation of practice and standards, as well as transparency. The team noted the subject specific criteria in several programmes under development, and recognised the care taken in setting these out clearly in the programme specifications. Programme specification and course templates require the inclusion of intended learning outcomes. There was clear evidence of assessment strategies mapped across to learning outcomes, and individual assessments with identified learning outcomes; learning outcomes were being thoroughly considered throughout the College's programme design and approval processes. The College's approach to the specification of the curriculum and its assessment using learning outcomes and grade criteria is an example of good practice.

14 The main point of scrutiny of proposed assessment arrangements at programme level or course level is by the Programme Scrutiny Sub-Committee. The College has uniform minimum standards for first and second-marking and external examination and anonymous-marking is deployed wherever possible. Examinations are governed by the assessment regulations and associated procedures which are published annually by the Registry.

15 All the College's programmes have an appointed external examiner. External examiners receive a briefing pack on appointment and may also be briefed within departments, however no systematic personal induction or training is arranged by the College. External examiners comment in their reports on the appropriateness of academic standards, the rigour of the assessment process and the equity of treatment for students, comparability of standards and, finally, good practice that has been identified. The reports and the responses to them are a part of departmental programme review reports. The reports of external examiners may be seen by student representatives as a part of the consideration of those reports within the annual monitoring and programme review procedures, but this is not systematic and each department has its own system in place for this. A digest overview of external examiners' reports is considered on an annual basis, and contains a comprehensive and detailed analysis of matters raised by external examiners. The digest, prepared by the Quality Office and considered by the Standards Scrutiny Sub-Committee provides good evidence of the College's careful monitoring of standards, although it would be more valuable if considered earlier. Overall, the audit confirmed that external examiner reports were appropriate in their scope and were given full and proper consideration by the College. The audit team found some weaknesses associated with the timing of the appointment of external examiners and noted that induction procedures were largely document based. The College is therefore advised to strengthen its arrangements for the timely appointment, and the briefing and support, of its external examiners.

16 The Standards Scrutiny Sub-Committee, established in 2007, has a specific remit for the management of standards, assessment and examinations. The Committee regularly reviews assessment regulations, patterns of student achievement across the College, and takes an overview of the annual operation of examination boards. The audit team formed the view that this Committee was well informed and giving detailed consideration to standards-related matters

with a growing capacity to act effectively in coordinated assessment and examination arrangements. However, the audit showed that there remained some variability in the operation of examination boards at the departmental level. It is recommended that the College explores further the opportunities for greater consistency of operation and more effective use of supporting information in the work of examination boards. The team also found that recent changes in the committee structure had meant that it was now more difficult to ensure that decisions on awards in joint honours programmes were fully informed by the views of external examiners in both subject areas. The College is recommended to review the proposed arrangements for external examiner involvement in decisions on awards for joint honours programmes, so as to ensure appropriate externality.

17 The College recognises the importance of accurate and relevant statistical data in making planning decisions and in seeking assurance about the standards of achievements of its students. Data is used in support of recruitment and admissions, annual programme review, and examination processes. Work was carried out during 2006-07 to standardise the format of the data, enabling the various bodies such as Academic Board, the senior management team, departmental boards and examination boards to be supported in their decision-making. The College is planning to strengthen its management information system to provide enhanced support.

18 Students receive information on assessment through the assessment regulations, through programme specifications, the departmental or programme student handbook, and through the College's Student Charter. Students confirmed that information to support their learning and assessment, and relating to student support services was readily available from these sources and also through the College's web-based information resources.

19 Overall, the audit team found that confidence can reasonably be placed in the soundness of the College's current and likely future management of the academic standards of the awards that it offers.

Section 3: Institutional management of learning opportunities

20 The College's framework for the management of quality and standards takes due account of external reference points in informing its development of learning opportunities for students. New and revised sections of the *Code of practice*, published by QAA are considered by the relevant areas within the College, and the Learning and Teaching Quality Committee receives information about updated sections of the *Code*. The audit team judged that the University was making effective use of the QAA Academic Infrastructure in the management of its learning opportunities with the exception of the need for more formal procedures for programme closure, in line with the *Code*.

21 The College's procedures for programme development and approval are linked to a planning process allowing synergy between the College's strategic aims, departmental academic developments and resource availability. External readers' reports are commissioned to bring an external viewpoint into a new proposal. The college-wide process for annual programme review was introduced in 2004-05 and reviewed in 2007-08. The opportunity to link this work more closely in future to the annual strategic planning process is a further potential development. In addition, periodic five-yearly programme/departmental review procedures are in place and an extended methodology for this process was piloted in 2007-08. The audit team saw several review trails and concluded that the periodic review process was thorough and rigorous. The reviews include the participation of external advisers and where relevant representatives of professions and industry.

Programme monitoring at the College is managed at departmental level by a programme monitoring committee, chaired by a member of staff outside the department. The procedure was revised and strengthened in 2007. The new arrangements introduced the role of departmental student coordinator as a paid post and employee of the Students' Union. The staff member from the Students' Union responsible for coordinating these arrangements meets regularly with the Quality Office to progress issues being raised and reported. A reporting service based on a webbased database provides the facility for issues raised in monitoring to be uploaded and reviewed. This enables the College to gain an overview of issues being raised and provides an opportunity for early feedback on actions taken or responses received.

23 Monitoring of programmes feeds into a college-wide process for annual programme/departmental review. This brings together a range of separate reporting activities into a single overview with focused aims including the identification of planning for enhancement. Annual reports are prepared by the programme leaders and are considered by the departmental learning and teaching committees. They are then forwarded to the Quality Office, which prepares a summary overview for the College Learning and Teaching Quality Committee. The annual departmental reports include consideration of student progression and achievement data, National Student Survey outcomes, and Unistats data. While these procedures for programme monitoring and review are sound in principle, the audit showed that there is still variability in the scope and content of reports.

The audit team concluded that the College's processes for monitoring and review have the potential to be fit for purpose and are consonant with the relevant precepts of the *Code of practice*. However, the team noted that the scheduling of the annual programme review did not provide Academic Board with a report until 18 months after the end of the academic year under review. For the 2006-07 session reports received comprised only 70 per cent of the programmes, and this was itself a significant improvement on the previous years' level of reporting. The College therefore has to ensure the full operation of these arrangements across all departments, and it will also wish to be confident that the scheduling of the reporting cycle allows it to gain the necessary overview and take action in a timely manner. It is recommended that the College strengthen the management of the annual programme review process, so as to achieve full and timely compliance with the College's agreed procedures.

25 Programme closure is considered by the Programme Scrutiny Sub-Committee and the Quality Handbook includes a template for programme amendment where one of the options is to discontinue a course, but this does not offer any detailed guidance and does not address how the interests of existing students would be protected. The audit team recommends that, with a view to formal decision-making and explicit communication, a formal procedure for programme closure should be developed and fully documented.

Management information - feedback from students

The College regards student feedback as integral to its quality assurance processes and gathers this information in a number of ways. Some students were unsure what had happened as a result of their feedback, although others noted that they were aware of changes made as a result of feedback given from previous cohorts of students. The audit team heard in meetings that the College was aware of these communication issues and was seeking to address them.

As already noted, the College and the Students' Union have worked together to introduce a revised system of programme monitoring. The appointment of paid departmental student coordinators aims to promote greater student engagement with the monitoring process, and to achieve a more timely response to student feedback where appropriate. The audit team concluded that this was a valuable initiative which can be an effective mechanism for gaining, and responding to, student feedback, and that the College is committed to ensuring that it achieves its full potential.

28 The National Student Survey provides the College with another source of information on student feedback and the audit team saw evidence that the results from the Survey are analysed in detail and acted upon at both departmental and College level.

Role of students in quality assurance

29 Students are represented on all key College and departmental committees. Student handbooks make explicit the student representation process and the ways that students can contribute to the monitoring and evaluation of their learning experience. Minutes of the College committees indicated a considerable level of commitment by the relatively small number of sabbatical officers within the Goldsmiths Students' Union. Members of departmental and periodic review panels also meet with groups of students as part of the review process. Overall, the audit team found that the College takes a highly inclusive approach to the involvement of students in the life of the College and that the arrangements for student involvement in its quality management processes are highly effective and are a feature of good practice.

Links between research or scholarly activity and learning opportunities

30 The College believes that teaching informed by scholarship and research is a major contributor to the academic standards and the quality of the student learning experience. Many areas of the College's curriculum relate directly to the research interests and expertise within its departments and research institutes. Postgraduate research students talked positively about the Goldsmiths experience referring in particular to the high quality of the academic research environment. College learning and teaching fellowships for 2008-09 were specifically focused on the exploration of the link between research and teaching (see paragraph 56). The audit team concluded that there was a strong and active research culture in the College and that there was sound evidence that teaching was being enhanced as a result. The College is acting strategically to understand and enrich the links between research and teaching and students' learning opportunities.

Other modes of study

31 The College is the lead College for the provision of English and Computing programmes within the University of London External System, which was audited separately by QAA in 2005. The College offers no other provision through flexible and distributed learning methods. A number of programmes within the College offer a variety of placement opportunities to students. The College recognises that there is a level of unplanned variability in the way that student placements are managed and it is currently reviewing its approach to placement learning, with appropriate reference to the precepts of the *Code of practice*.

Resources for learning

The library's strategic plan is based on the objectives of the College and the Learning Teaching and Assessment Strategy and informed by the Library User Group. Feedback on the service is collected from students in a number of ways and the library's annual report is reported through the committee structure to Academic Board. As a part of the University of London, the College's staff and students also have access to the Senate House Library. Student feedback showed that students were dissatisfied with some aspects of the library provision, but the audit team heard that recent additional resource allocation to the library was helping to address the issues raised. Development of the College's Information Technology (IT) Services is guided by the College Information Technology Strategy and the College aims and objectives. The service is monitored through a number of mechanisms, for example service level descriptions and IT service annual plans. Its annual report is considered by the Information Management and Systems Committee. Students who met with the team were generally satisfied with the IT resources available.

33 The College's virtual learning environment, 'Learn.gold', was launched in 2003. Students described variable usage across and within academic departments. However, the audit team heard evidence that the College was encouraging departments to further embed the virtual learning environment in their learning and teaching activities and the team concluded that the College was making increased and effective use of Learn.gold to support the student learning experience.

Poor quality teaching accommodation has been raised as an issue through student feedback and by some external examiners, and the associated problems are recognised by the College. The audit team learnt that the College estate will benefit from major development over the next three years and that a master plan for the whole College estate had been drawn up. Nevertheless there clearly remained some unsatisfactory features with regard to the current teaching accommodation provision. The team learnt that a space utilisation survey had been instigated and that the future implementation of a College-wide timetable should facilitate better use of the College's estate.

35 Notwithstanding the comments above regarding the College's estate, the audit team concluded that, overall, the physical learning support resources, and in particular the library, IT and the virtual learning environment are generally fit for purpose and adequately support students in achieving their learning outcomes. The team also concluded that the College's arrangements for the provision, allocation and management of learning resources are generally effective and that the College has the necessary quality systems in place to identify and address any deficiencies in the current provision.

Admissions policy

36 The College's recruitment and admissions policy was agreed by Academic Board in 2002, and was being reviewed at the time of the audit. It covers the admission of both undergraduate and postgraduate students and aims to ensure the fair assessment of applications and the promotion of professional standards for both academic and administrative admissions practitioners. The College's recruitment and admissions procedures take account of the relevant section of the *Code of practice*. Admissions are handled by the Student Recruitment and Admissions Office within the Registry. The Office has specialised units which give particular attention to international students and to widening participation. Recruitment is supported by a range of helpful and informative prospectus documentation. The College organises open days for applicants, induction for new students, and targeted events for new international and external students.

37 Applicants' satisfaction with the implementation of the College's policies and procedures is measured through surveys and through the monitoring of applicants' correspondence and complaints. The audit team heard that the internal survey started in 2005 has now been discontinued and replaced by use of the Student Barometer and the International Student Barometer. In discussion with the audit team students confirmed that they had attended an appropriate induction programme which they had found useful and that the introductory week had taken place for both new and returning students.

Academic Board receives a detailed report on admissions activity at least annually in the autumn term. As well as formal communication through the committee structure, there is a College network for admissions tutors. Admissions tutors are also provided with an admissions practitioners handbook. While the handbook is a comprehensive document, the 2008 handbook provided to the audit team contained some very out-of-date information. The College will wish to ensure that the utility of the handbook is not adversely affected by the inclusion of out-of-date information.

39 From the evidence available the audit team formed the view that the College maintains appropriate oversight of the operation of its admissions procedures and that the implementation of its admissions policy is consistent.

Student support

In 2006, the College made changes to the portfolio of the Pro-Warden (Students and Learning Development), which were intended to bring learning, teaching and assessment in closer relation with the wider 'student experience' agenda. Since then the College has developed a Student Experience Strategy, monitored and reviewed annually by the Student Committee. This was clearly a valuable initiative, giving closer attention to all aspects of the student experience. The College has also developed, in collaboration with the Students' Union, a Student Charter, approved by Academic Board in June 2008 and framing explicitly student entitlements and responsibilities. These were seen by the audit team as very positive developments, but at the time of the audit it was too early for students, or the team, to assess their impact on the student experience.

41 Students are allocated a personal tutor, who acts as a point of contact for both academic and pastoral issues. The College's personal tutoring guidelines were revised for 2005-06 to establish a baseline of provision for departments to meet. This expectation was introduced in conjunction with a scheme for personal development planning which was re-launched in 2006-07 as the 3D Graduate Scheme (see paragraph 58). Students who met with the audit team, although supportive overall of the personal tutoring system, had variable experiences of the system. The Students' Union advice service complements the roles of personal and senior tutors and acts as a further point of referral for students.

42 All students receive student handbooks. The College provides a template for departments to use in the production of their student handbooks. Students who met the audit team considered the handbooks for their programmes to be informative, relevant and useful. The team concluded, on the basis of the examples made available to it, that the student handbooks were clear and comprehensive.

Discussions with students gave a variable picture in relation to the timeliness and usefulness of the feedback they received on their assessed work. Some students were very positive about the formative feedback they had received on work not contributing to their final award; others stated that they had rarely received their (summative) assessed coursework back, or had feedback on examinations. It was clear that the College had recognised, from internal surveys and from the National Student Survey outcomes, that action would be desirable regarding feedback on assessment and that it was seeking to address it actively through a number of initiatives. Nevertheless, comments from students left the audit team unclear as to the level of progress which had been made to ensure that all students receive useful and timely feedback on both their formative and their summative assessed work.

The College's complaints and appeals procedures are set out in its General Regulations. The Students' Union Advice Centre provides advice and guidance to students on making complaints and appeals and where complaints cannot be resolved at an informal level assists students in the formulation of formal complaints. The Regulations also inform students of their right to an appeal, the grounds that are acceptable and the appropriate process. The College has revised its procedures for the notification of extenuating circumstances, having noted that the most common basis for successful appeals has been on the grounds of extenuating circumstances that students did not bring to the attention of the examiners in good time. For both complaints and appeals, students are informed of the outcome in a 'Completion of Procedure' letter that also contains the information they need to take their case to the Office of the Independent Adjudicator. Academic Board receives an annual report on complaints and appeals. On the basis of the evidence available, the audit team concluded that the College has in place appropriate and confidential mechanisms to deal with all complaints regarding academic and non-academic matters.

45 The College is developing an integrated approach across all its support services for service delivery. Student Support Services comprises a range of services coordinated by the Head of Student Support Services, reporting to the Registrar and Secretary. These services work with Departments to provide support to students and are supplemented by specialist services such as the Careers Service. Information and guidance on support services is communicated to staff and students and each service has its own feedback and review mechanism to measure effectiveness. The student written submission reported that students were generally satisfied with the support services available and the audit team saw evidence of appropriate annual reporting on various support services through the College's committee structures. Overall, the team formed the view that the College's arrangements for student support are comprehensive and effective.

Staff support (including staff development)

The College's strategic aim in relation to its human resources is 'to recruit and retain high-quality and appropriately-qualified staff in all areas of the College, to provide an effective framework for staff development, to develop good management and leadership skills, to develop an effective culture of clear, two-way communication between staff and management, and to reward good performance'.

47 The promotion of pedagogic effectiveness is a key part of the College's Learning, Teaching and Assessment Strategy. The audit team saw considerable evidence that teaching and pedagogic development within disciplines was a priority for the College. However, there was currently no college-wide system of teaching observation although the audit team heard that the College was considering making such peer observation a systematic arrangement for all staff. Students at Goldsmiths were generally very positive about the quality of the teaching they experienced; this evaluation was also reflected in the College's outcomes in the National Student Survey and in the student written submission to the audit.

48 Newly appointed academic staff without a formal teaching qualification, are encouraged to take the College's Postgraduate Certificate in the Management of Learning and Teaching, and the audit team learnt that the Human Resources Department is currently looking at making this a contractual requirement for new academic staff. The College's position on supporting postgraduate research students undertaking teaching duties, was found to be variable. The College is recommended to specify and implement consistently the minimum level of training and support which postgraduate research students receive before they contribute to teaching. The induction of new staff takes place at both institutional and departmental levels. Their training and development needs are established as part of the interview process, during induction and probation for new staff, and then as part of the appraisal process. All new academic staff are appointed a mentor. Staff who met with the audit team spoke of positive experiences of being supported by mentors.

49 The College introduced new procedures and criteria for academic promotions in 2006-07. It continues to follow the pre-existing guidance in University of London Ordinances on the qualities expected of those awarded the titles of Reader or Professor, but makes its own decision via internal panels on awards of titles to staff who apply. Promotion panels meet on an annual cycle, with outcomes being reported to Council. The procedures and documentation are reviewed annually at the beginning of each cycle. Unsuccessful candidates for promotion are offered feedback and, as with the College's recruitment process, the promotion process is monitored in relation to gender, ethnicity and disability with an annual report being made to the Equal Opportunities Committee. The audit team learnt that the College is currently reviewing its policy and procedures relating to progression and promotion.

50 The College operates an annual appraisal scheme, Performance and Development Review for all staff. The audit team learnt that the scheme was considered as part of the Human Resources Review, which found that staff were not always convinced about the link between the Review and staff development planning. Proposals for enhancing the role of the Review in strategic planning and staff development have now been considered by the College's senior management and these proposals were currently subject to consultation with the staff unions. Staff who met with the audit team were generally supportive of the Performance and Development Review process.

51 Staff development is planned and supported by the Staff Development Unit. The audit team learnt that the College was now taking a more strategic approach to staff development, addressing larger scale organisational development needs. Staff who met with the team were generally supportive of the staff development opportunities on offer within the College. An annual report regarding staff development activity undertaken across the College is presented to the Equality and Diversity Committee of Council, and to Academic Board. 52 From the evidence available the audit team formed the view that the College's arrangements for staff support and development are generally effective. There is evidence of staff engaging with the pedagogic development of their discipline and of a vibrant research agenda. An exception to this generally positive picture is the lack of clarity around the formal college-wide support for postgraduate research students undertaking teaching duties.

53 Overall, the audit team found that confidence can reasonably be placed in the soundness of the College's present and likely future management of the quality of the learning opportunities available to students.

Section 4: Institutional approach to quality enhancement

54 The College believes that 'learning and teaching development and enhancement lies at the heart of its approach to the assurance of quality and standards'. The College formulated a revised Learning, Teaching and Assessment Strategy during 2006-07 which sets out the strategic agenda within the College for these areas from 2007-08 to 2010-11. The audit team also saw evidence of the critical role that the Learning, Teaching and Assessment Strategy was playing in the College's enhancement agenda and in the raising of the profile of learning, teaching and assessment within the College.

55 The departmental learning and teaching committees are charged with formulating departmental learning, teaching and assessment strategies in line with the overarching College strategy. These include plans for development and enhancement at the subject level. The audit team saw evidence that the departmental committees were generally discharging their responsibilities in accordance with their terms of reference and also saw evidence of the discussion, and development, of departmental strategies. The team learnt that these are to be published on the College's website thereby allowing access by students.

56 In 2009, the College merged a number of its academic support services, with the Learning and Teaching Office and the Centre for Excellence in Learning Technology, being combined to form the Goldsmiths Learning Enhancement Unit. The purpose was to provide the College with a central focus for strategically developing and implementing policies and practices aimed at enhancing learning, teaching and assessment. One of the ways in which the College engages academics in learning and teaching developments is through the establishment of learning and teaching fellowships. These are appointments at the departmental level, working together on college-wide projects. Projects have included the development of learning supported by IT, approaches to assessment and feedback, and the links between research and teaching. The audit team saw good evidence that the work of the learning and teaching fellows was having a positive impact in terms of enhancement and the sharing of good practice within the College.

57 The audit team noted particularly the coordinated approach that the College was taking to enhancement in the management of assessment. It has carried out a college-wide review of assessment practice. Recent fellowships have focused on assessment feedback and on broader issues identified by the review. The team heard examples of the exchange of good practice and proposals for innovation. Both the Standards Scrutiny Sub-Committee and the Learning and Teaching Quality Committee had engaged purposefully with assessment-related issues. While recognising that there were also less positive findings from the audit in the context of external examiner arrangements, the team considered that the strategic commitment to change and improvement in this area constituted good practice.

58 Documentation provided by the College gave a number of other examples of enhancement activity one notable example of which is the notion of the 3D Graduate which the College formulated in collaboration with the Students' Union. The concept of the 3D Graduate is the key mechanism through which students are supported in developing skills and attributes through and beyond their academic programmes. Students who met with the audit team were supportive of the concept of the 3D Graduate although their understanding and experience of the scheme had been variable. The Learning Enhancement Unit supports academic staff in engaging with the scheme and provides resources to support the facilitation of student personal and academic development. In addition, the unit provides training workshops and supports staff directly in the development of new, related initiatives. In 2007-08 staff and students within the College were surveyed and the results showed that the uptake of the 3D Graduate scheme was lower than had been expected; consequently the College began work on developing the Gold Award. The Gold Award aims to recognise and reward students who actively participate in enhancement and extra-curricular activities towards their personal, academic and career development. The College's Student Committee has agreed that the scheme will be taken forward and it is intended that it be offered to all undergraduates in 2009-10.

59 From the evidence available to it the audit team concluded that the College had strengthened its strategic emphasis on enhancement through its committee structure, its policy development, and its reorganisation of academic support units. There is a clear focus on an agenda for enhancement and improvement, and the sharing of good practice is well developed in the College's work.

Section 5: Collaborative arrangements

60 Goldsmiths is the lead college within the University of London External System for the provision of English and Computing programmes. These are delivered to over 3,500 external students. The provision is overseen by the External Systems Sub-Committee. The University of London External System was audited separately by QAA in 2005, and provision offered by the College through the External System was not included in this audit.

61 The College's other collaborative provision at the time of the audit was very small in scope. The College had only one significant collaborative partnership: a postgraduate diploma award delivered in Europe by a partner in a specialist subject area, with a small number of mature students. In its earlier, more substantial form, this programme had previously been subject to a QAA Collaborative provision audit and recommendations relating to it were made in that audit and in the 2005 Institutional audit. Notwithstanding some positive initiatives by the College, the audit team found that concerns relating to collaborative provision articulated in the 2002 and 2005 QAA reports remained at best only partially addressed in 2009.

62 The College had carried out a cross-marking calibration exercise and also a periodic review of the programme, both of which had contributed usefully to the assurance of standards. However, the audit team found a number of weaknesses in the assurance of the programme which raised some concerns. There had been a lapse in the continuity of the contractual agreement with the partner. Difficulties in checking and comparing the standard of work had arisen because of language differences, and no formal arrangement for translation was in place; language issues also arose with regard to the checking of publicity materials for the programme. The external examiners for the collaborative programme had not been completely qualified in accordance with the recommendations of the Code of practice, lacking familiarity with the UK higher education system. Examiners had also expressed regret at the lack of a comprehensive briefing on their duties. The College needs to ensure that the monitoring reports from collaborative programmes are given full attention within its normal review and reporting cycle. While there was no evidence that quality or standards had been seriously affected, and indeed the College has a leading role in the subject area concerned, the team nevertheless considered that these weaknesses could put the provision at risk.

63 The audit team found that the College's current Quality Handbook contained only minimal regulatory procedures for collaborative provision, in the main simply referring to the *Code of practice* as the basis for operation. Detailed information relating to the programme was held only informally, mainly at departmental level. It is therefore recommended that the College establish a more formal and detailed register for the recording of the College's current and future collaborative partnerships. In the course of the audit period the College was debating and developing its strategy for collaborative and overseas provision, and was also putting in place a more comprehensive quality assurance framework for that area of its provision. In view of the matters outlined above, these more formalised and explicit procedures were considered by the audit team to be most necessary. The team would therefore strongly encourage the College to put in place the procedures set out in its recently developed collaborative provision framework. The team was confident that, once implemented, this framework would have the potential to address the matters raised successively through audits over this extended period. It is particularly important that this is done if the College envisages expanding its collaborative partnerships in future. The team therefore recommends that the College completes the approval process for the new framework at the earliest opportunity and subsequently ensures its full implementation.

Section 6: Institutional arrangements for postgraduate research students

65 The award of research degrees is formally the responsibility of the University of London, but many of the functions are delegated to the College and governed by its own regulations. Ordinances of the University set out criteria for programmes of study and for the admission, registration and supervision of research students. The College's Regulations are consistent with the requirements of the University. Once a thesis has been completed, it is submitted for examination to the University.

Goldsmiths has a strong record of achievement in scholarship, research and publication, and the research students met by the team emphasised that the College's reputation for cutting-edge work had attracted them to the institution, confirming that the intellectual and practice-based research environment contributed substantially to the educational and research experience. All 15 of the College's academic departments provide support and supervision for research students.

67 Responsibility for the standards and quality of research degree programmes lies with the Academic Board. Detailed oversight and management has been delegated to the Graduate School Board including responsibility for monitoring the progress, progression and completion of research students. The Graduate School Board is chaired by the Dean of the Graduate School. The College's Code of Practice for Postgraduate Research Students sets out the roles and responsibilities of students, supervisors, heads of departments, and departmental Postgraduate and Research Committees. The Code describes required procedures from registration to the submission of a thesis. The Code has been aligned with the expectations of the *Code of practice, Section 1: Postgraduate research students*, published by QAA. A research student handbook encapsulates all the regulations and policy into a single document for the guidance of students.

68 From the autumn term 2008, the College introduced a system of annual programme review of postgraduate research degrees which addresses all key aspects of the postgraduate experience. The reports are reviewed by the Graduate School Board which also considers, annually, feedback from the Postgraduate Training Programme Monitoring Committee, and a digest of external examiners' reports.

69 Selection and admission are governed by the Regulations of the University of London which require a minimum entrance requirement equivalent to an Upper Second class honours degree at a UK university. Applicants are interviewed by at least two members of staff with expertise in the area of the proposed research. All applicants are given an opportunity to visit the College and to meet academic staff and the Disability Coordinator. An induction week is run each September by the Graduate School and all the departments run induction sessions addressing the more specific provision within their disciplines. The students met by the audit team reported that they had found the information sent to them before arrival and the processes of induction to be useful and accurate. To Each postgraduate research student has a main supervisor who is the first point of contact, and a second supervisor. Expectations regarding the frequency and nature of meetings between student and supervisor are set out in the Code of Practice. Brief dated records must be kept by supervisors of each meeting. An annual report is completed by both the student and the supervisors and is reviewed by the Departmental Postgraduate/Research Committee. The research students met by the team confirmed that they were aware of these procedures and that they were adhered to.

71 The first monitoring review of a student's progress takes place at the end of their first term. Subsequently monitoring must take place at least once a year. Progress of first-year students is also monitored in Spring Review Week. Where students wish to transfer from a master's to a doctoral research programme formal progress of upgrading takes place with two examiners and the supervisor acting as observer. The assessment of research degrees is the responsibility of the University of London. The University lays down the procedure for the appointment of examiners, and the criteria for appointment. Two, or exceptionally three, examiners are appointed, one of whom has to be external to the University. Examiners prepare independent preliminary reports and a final joint report.

At the start of a student's research degree the supervisor leads the student in a training needs analysis. Workshops on research methods and other skills are provided for new students in their first and second terms. The Graduate School publishes an annual handbook of College courses available to research students. Departments provide additional training tailored to disciplinary requirements. Students met by the audit team reported that departmental provision varied in volume and intensity and indicated that the Graduate School was playing an increasing role in organising joint meetings and cross-disciplinary seminars. In the view of the team there was evidence that the Graduate School was making a positive contribution to the availability and range of skills and other courses for postgraduate research students.

73 Postgraduate research students are represented on departmental postgraduate/research committees, and on departmental boards. At College level, two postgraduate research student representatives are nominated by the Students' Union to sit on the Graduate School Board. The College Generic Training Monitoring Committee includes five representative student members and members of staff involved in the training. The Committee reviews the training course in the light of student feedback. Outcomes are reported to all research students and the Graduate School Board. The annual progress report, completed by both the student and the supervisor, provides opportunity for students to give feedback on their programme. The research students met by the audit team indicated they would normally expect to feed back through their supervisor and in the annual report. However, they were aware of mechanisms available at College and departmental level.

Postgraduate students participate in the research community through regular seminars, invited lectures, events and collaborations. This includes a series of fortnightly interdisciplinary seminars at which students in the later stages of their research presented their work. Research centres provide opportunities for interdisciplinary and multidisciplinary research, and the College has important links with other universities in London and colleges within the University of London. Some of these directly involve research students, for instance joint PhD workshops, and research networks. A substantial minority (28 per cent) of the visiting tutors who teach undergraduates at the College are research students. Most departments provide guidance and training on teaching and all PhD students are encouraged to participate in the Postgraduate Certificate in the Management of Learning and Teaching. Visiting tutors are supported by a mentor. Some variability in the preparation for teaching was, however, noted by the audit team (see paragraph 48).

75 The procedure for dealing with students' complaints and grievances is set out in the Research Student Handbook. Minor complaints are dealt with in departments. Students also have access to the Dean of the Graduate School and ultimately the Pro-Warden (Students and Learning Development). For more serious complaints, there is a formal College students complaints procedure set out in the General Regulations, which also applies to postgraduate students (see paragraph 44).

The audit team concluded that the College's management of its research degree programmes met the expectations of the *Code of practice, Section 1: Postgraduate research students.* The team also considered that the creation of the Graduate School, and particularly the oversight of all matters affecting postgraduate research by the Dean of the Graduate School and the Graduate School Board, had begun to enhance the experience of research students.

Section 7: Published information

77 The Communications and Publicity Office has overall responsibility for corporate and student recruitment publications produced by the College. The Office also provides clear guidelines for departmental handbooks. All publications can be downloaded from the Goldsmiths' website and are also available in larger format. At the time of the audit the College was considering the creation of a new Department for Marketing, Recruitment and Communications which would assume complete responsibility for all corporate communications, including the content of corporate web pages.

78 The content and presentation of publications are guided by the College's publications policy, web publishing policy and guidelines for the production of printed materials. Consistency is monitored by the Communications and Publicity Office. Where web pages are involved, support and oversight are also provided by the web team in IT Services. The Reprographic Unit provides advice on implementing the College's guidelines on branding and presentation of the corporate identity.

79 Reflecting the importance of communication and design in many of its degree programmes, the College pays particular attention to clear and attractive communication in all its publications. The Strategic Plan places emphasis on successful external and internal communication with potential and current students and staff as well as with external organisations and professions, particularly in the creative industries, with which many departments at Goldsmiths engage. This emphasis was reflected in the redesign and relaunch of the College website in 2007 and in the creation of the portal 'StudentGold' and 'learn.Gold' the virtual learning environment for students, together with 'StaffGold', the portal for academic and other staff.

80 The College's wide range of internal publications for students and staff are generally produced within a broad design template which results in consistency of look, layout and content. At the time of the audit, the College was implementing a Web Content Management System to maximise the consistency and efficiency of its production of information.

Programme specifications are available from the Academic Registrar's Office. Shortened versions are provided within the student handbooks produced by each department. The audit team examined a sample of specifications for taught programmes and found them to be accurate and complete. Learning outcomes are linked to relevant subject benchmark statements.

82 The College has provided a full and up-to-date set of information for presentation on the Unistats website. Robust mechanisms are in place for the verification of the data provided and to check its consistency.

Students met by the audit team confirmed that information they received before arrival and on induction was comprehensive and accurate. They also confirmed that information to support their learning and assessment and about student support services was readily available and that they found the 'StudentGold' and 'learn.gold' websites almost invariably provided the information they required.

84 The audit found that reliance could reasonably be placed on the accuracy and completeness of the information that the College 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

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

- the development at departmental level of detailed discipline-related assessment criteria, based on the College's generic criteria (paragraph 13)
- the constructive and systematic involvement of students in their contribution to the work of the College in planning, policy development and quality assurance (paragraph 29)
- the strategically targeted approach to the enhancement of student learning through the teaching fellowships scheme (paragraphs 30, 56)
- the College's initiatives to support innovative practice in student assessment (paragraph 57)
- the work of the Graduate School in providing cross-college support for postgraduate research and taught postgraduate students (paragraph 72).

Recommendations for action

86 Recommendations for action that is advisable:

- to strengthen the College's arrangements for the timely appointment, and the briefing and support, of its external examiners (paragraph 15)
- to review the proposed arrangements for external examiner involvement in decisions on awards for joint honours programmes, so as to ensure appropriate externality (paragraph 16)
- to strengthen the management of the annual programme review process so as to achieve full and timely compliance with the College's agreed procedures (paragraphs 24, 25)
- to develop and document procedures for programme closure (paragraph 25)
- to complete the development and implementation of the new framework for the management of standards and quality in collaborative provision (paragraph 64).
- 87 Recommendations for action that is desirable:
- to seek ways to achieve a more rapid implementation of the College's agreed strategies and policies, particularly at departmental level (paragraph 7)
- to develop a more formalised and systematic way of making external examiner reports accessible to student representatives on a programme (paragraph 15)
- to explore further the opportunities for greater consistency of operation and more effective use of supporting information in the work of examination boards (paragraph 16)
- to specify and implement consistently the minimum level of training and support which postgraduate research students receive before they contribute to teaching (paragraph 48)
- to establish a more formal and detailed register for the recording of the College's collaborative partnerships (paragraph 63).

Appendix

Goldsmiths' College's response to the Institutional audit report

The College welcomes the judgement of the QAA audit team that confidence can reasonably be placed in the soundness of the College's present and likely future management of the academic standards of awards and in the quality of the learning opportunities available to students.

We are particularly pleased about the commendations of good practice relating to the College's work on discipline-related assessment criteria and initiatives to support innovative practice in student assessment; the constructive and systematic involvement of students in the work of the College; the strategically targeted approach to the enhancement of student learning through the teaching fellowships scheme and the work of the Graduate School in providing cross-College support for postgraduate research and taught postgraduate students.

The College notes the specific recommendations given in the report and is responding positively to these through an agenda which will further enhance the management of quality and standards within the College.

The College would like to thank the QAA audit team for its professional and constructive approach and for its helpful and thorough commentary on the work of the College.

The College also appreciates the contribution made by College staff and students to the positive outcome of the audit.

The Quality Assurance Agency for Higher Education Southgate House Southgate Street Gloucester GL1 1UB

Tel 01452 557000 Fax 01452 557070 www.qaa.ac.uk

RG 550 10/09