Learning and Teaching Strategy 2006-9
1. Background

1.1 Purpose
This is Imperial College London’s fourth Learning and Teaching Strategy. The vision of each Faculty or School for learning and teaching is indicated and the major cross institutional themes envisaged as being important for continuous improvement over the next three years are set out. The strategy reflects Imperial’s mission and strategic intent and takes into account, in the Imperial context, the various national priorities and imperatives for learning and teaching and their impact on students.

1.2 Mission
Imperial College London embodies and delivers world class scholarship, education and research in science, engineering and medicine, with particular regard to their application in industry, commerce and healthcare. We foster interdisciplinary working internally and collaborate widely externally.

Strategic Intent
- To remain amongst the top tier of scientific, engineering and medical research and teaching institutions in the world.
- To harness the quality and breadth of our research capability across multiple disciplines to address major challenges.
- To develop our range of academic activities to meet the changing needs of society, industry and healthcare.
- To continue to attract and develop the most able students and staff worldwide.
- To communicate widely the significance of science in general, and the purpose and ultimate benefits of our activities in particular.

1.3 Imperial – an overview
Imperial College London is a world-renowned institution with exceptionally high ratings for both teaching and research. The Rector is the academic head of the College and its chief executive officer. The Deputy Rector and Pro Rectors have responsibility for particular areas, with the Pro Rector (Educational Quality) having responsibility for learning and teaching. Various league tables of universities, programmes, teaching, and research, generally rank Imperial in the top five institutions in the United Kingdom, with rankings for each major disciplinary area being within the top five in Europe, and rank it highly among institutions across the world.

Imperial is committed to providing education at both undergraduate and postgraduate levels in a predominantly residential context. Our student population is drawn from across the world with around 25 per cent from outside the UK and the European Union. Education is delivered within three Faculties and a Business School, and is supported by two Graduate Schools and a Humanities Programme. Imperial's high percentage of 5* research active academic staff is seen as a fundamental strength, ensuring that students are taught by leaders in their fields.

In 2005-6 Imperial had approximately 11,500 full time students, seventy percent of whom were undergraduates, fourteen percent taught postgraduates and sixteen percent research postgraduates. There were an additional 800 part time postgraduate students. Students pursue their education at the main South Kensington Campus and at a further six Imperial campuses in London and the south east of England, as well as at numerous NHS hospitals.

A high priority is given to continuous improvement of the quality of learning, teaching, and the student experience. Methods and mechanisms employed to enhance this include student feedback, peer observation, programme review, professional development for staff, and provision of extensive academic and pastoral support for students. These features are key to attracting able students, to supporting the full diversity of the student population and to maintaining the high standards of outcomes expected of Imperial graduates. The recent Quality Assurance Agency (QAA) June 2005 Institutional Audit report gave the College an excellent bill of health, awarding a judgment of ‘broad confidence’ in the quality of its programmes and the security of its academic awards.
2. The Student Experience

Imperial is an international research university providing rigorous and intellectually challenging degree programmes for able and gifted students from all over the world. Most students live in or near their campus.

Undergraduate degrees are full-time, usually discipline based and delivered as an integrated and co-ordinated whole. All first year students are guaranteed a place in Halls. Every programme reflects a concern for the complete education of the individual and a belief that a campus environment encourages students’ engagement with staff, with each other and their programmes of study. As the student intake increases in diversity this has increasingly been reflected in enhanced pre-sessional work, induction, diagnostic testing and the provision of specialised teaching and support, and a concern with enhancing basic academic literacy, numeracy, study skills and the broader skills and qualities that are needed in employment and beyond.

Undergraduate students acquire in-depth knowledge of one field and the flexibility of mind to analyse and synthesise in other contexts. Most have the opportunity to pursue studies in a second field, including humanities (languages, history, music technology etc.) and management, and to undertake at least one extensive project. All programmes include transferable skills and students have access to the College-wide web-based provision for personal development planning - known as Imperial College Employability. Several programmes offer the opportunity of a year abroad. Students benefit from direct access to research staff and academic staff who are authorities in their field and who, in turn, are challenged by the intelligent questioning of sceptical and able young minds. The College’s research environment provides an opportunity for students at all stages to make a real contribution to an active research project. Learning and teaching at undergraduate level in science, engineering and medicine generally focuses upon fundamental scientific principles and understanding, with some disciplines having large applied elements, as well as on those skills, attributes and attitudes of mind needed for research, study and the world of work.

Postgraduate taught degrees from Imperial are held in high standing, as evidenced by the employability of graduates. They share many of the strengths evident at undergraduate level but also reflect the rapidly changing nature of the science, technology, medicine and society that can be studied at this level by incorporating very specialised or new fields. The different and differing needs of Master’s students are reflected in the wider range of modes of study and types of programme available. Programmes reflect discipline strengths, research intensity and the professional or vocational aspect typical of much Master’s provision. M.Res degrees continue to increase in number. Part-time study, distance learning, unitised provision and interdisciplinary can be found at this level of study.

Imperial College London is committed to providing the best possible learning experience for its research students and to maintaining its outstanding reputation for producing world-class, innovative and creative scientists, doctors and engineers. This reputation has been achieved by having outstanding researchers, engaged in cutting edge research, as student supervisors, and by adopting a sound approach to the supervisory and training process. These foundations continue to be enhanced by both discipline-specific and generalised, transferable skills training. The Roberts agenda continues to be actively and creatively implemented. A positive report was received from the recent QAA Special Review of Research Degree Programmes.

Teaching and learning methods are varied across the College and reflect the traditions of different disciplines, but with particular emphasis on lectures, tutorials, practical work and projects. Additional modes of learning and teaching are encouraged and supported, including the use of problem based learning, peer tutoring, and seminars. E-learning usage has increased significantly since the last strategy. This is true in respect of the use of departmental teaching intranets, use of a virtual learning environment, more technically advanced teaching aids and specialist software to support laboratory work, as well as the use of software appropriate to the academic and professional pursuit of the disciplines taught at Imperial.
Programmes at all levels have embedded pastoral support for students. This programme-based system feeds into departmental/divisional and College level support from senior tutors, postgraduate tutors, and College tutors, and into the wardening system for those in halls of residence. There is also a wide range of specialised support services, including the Student Counsellors, the Health Service and Disabilities Officer. Good use is made of other College-wide student support, such as the English Language Support Programme. First year undergraduates and Master’s students can boost their learning skills and understanding of what it means to learn at university level, through individual or directed use of ‘Learning to Learn’ and ‘Learning to Master’ booklets specially written for Imperial undergraduate and postgraduate taught students respectively.

The social, extra-mural, co-curricula and life skills aspects of being a student are not neglected, with the Imperial College Union, and the unions of the constituent faculties, playing an active part in student activity, entertainment and use of leisure time. The College has a new state of the art indoor sports complex on its main campus. The College has an active volunteering programme, runs an Undergraduate Research Opportunity Programme that can match students with opportunities for employment on research projects during vacations, and the Pimlico Connection Tutors scheme, one of the first of its kind, that places undergraduates in local schools. The College is also very involved in outreach activity to communicate, enthuse, teach and provide role models for diverse younger age groups on science in general.

The College quality assures it programmes within a light touch guidance framework led from the Registry and the office of the Pro Rector (Educational Quality), this incorporates local action and specificity within a broad College structure that complies with national and European guidance. The committee system runs from the Staff-Student liaison meetings of programmes, through department/division and discipline/faculty based committees to the College level, with the Graduate Schools being heavily involved at the postgraduate level. The main College level committee is the Quality and Academic Review Committee (QARC) which is a committee of Senate. Added to the committee system is periodic programme review. Each programme collects student feedback data, at undergraduate level through a College-wide online survey system, which also asks first year undergraduates about their general experience of Imperial. A similar system is used to obtain feedback from research students on their experiences.

Much attention is given to continuous enhancement of the quality of learning, teaching, and the student experience. Methods and mechanisms employed to enhance this include considering and acting on student feedback and the outcomes of programme review, peer observation of teaching, professional development for staff, and provision of extensive academic and pastoral support for students. Another important element is that the programmes on offer are kept fresh and up to date and that effective practices and approaches are shared across the College. These features are key to attracting able students, to supporting the full diversity of the student population, to maintaining the high standards of outcomes expected of Imperial graduates and ensuring that staff prosper in an atmosphere in which new ideas can be considered, implemented and rewarded.

3. Integration with Previous Strategies

Past learning and teaching strategies have been effective in enhancing a number of aspects, including through support and impetus for:

- student on-line evaluation
- periodic programme review to include international members
- the establishment of the Centre for Educational Development
- opportunities for support, professional recognition and reward for teaching
- the expansion of mathematics support and the English Language Support Programme
- e-learning, especially establishing a central service in respect of a virtual learning environment
- disability and student counselling support
4. The Learning and Teaching Vision and Priorities of the Faculties and Schools 2006-9

Each Faculty and School determines its plans and priorities for learning and teaching within the overall College direction and goals and has a distinctive approach to its educational mission compatible with its disciplinary base.

4.1 Faculty of Engineering
Postgraduate study within the Faculty of Engineering is considered below under ‘Graduate Schools’. The Faculty has embarked on an exciting initiative aimed at securing its place among the world’s top 5 teaching institutions for engineering, entitled EnVision 2010. EnVision has already carried out a considerable fact finding and consultative phase, brought the staff and students of the Faculty on board and conducted extensive visits to renowned engineering teaching departments across the world.

EnVision 2010 focuses on educational innovation to a world class standard in the undergraduate curriculum, to reflect the aptitudes and learning styles of students and the needs of the contemporary engineering industry. Particular emphasis is being placed on: upgrading of infrastructure and facilities so that public areas and learning spaces reflect the quality and image of a world centre for excellence in engineering education; management development, which includes consideration of recognition, reward and educational ethos; and marketing and communications to make internal and external communication about EnVision effective. Among other areas highlighted for enhancement are mathematics teaching and learning, the status of teaching, and greater use of e-learning. Among the strengths identified to carry forward are retention of support from industry, teaching by leading academics, and excellent student extra curricular activities and achievements. Data collection will continue to inform change. Agreed changes will be introduced as early as is feasible, thus allowing for monitoring, review and fine tuning so that they are in an evolved form by the target date of 2010.

4.2 Faculty of Medicine
Postgraduate study is considered below (see Graduate Schools). The School of Medicine’s six year MBBS programme includes an integrated BSc. The current intake is about 360 students per year (including those from Oxford and Cambridge who join in year three). The School is conscious of its obligation to widen participation in the intake to medicine, consequently a course at Thames Valley University has been created that will prepare students who lack sufficient qualifications in required areas for possible entry to the School. Another major thrust of the next few years will be to enhance the use of e-learning. The School has long had an extensive teaching intranet and made use of a system of remote participation from multiple sites in lectures delivered from a different campus. Innovative approaches, using newer technology and that are more learning centred are being planned for piloting and trial. At the same time the School has two major programme initiatives underway. The Faculties of Medicine and Natural Sciences will start to teach a new BSc in Biomedical Science in October 2006. A four-Year Graduate entry MBBS programme is also being planned for introduction towards the end of the decade, which will feature a one year intensive campus based course, followed by three years of clinical studies.

4.3 Faculty of Natural Sciences
Postgraduate study is considered below ‘Graduate Schools’. The Faculty’s undergraduate science degrees are taught by academic staff who are internationally recognised for the quality of their research. Staff aim to ensure that their teaching is informed and enriched by research and the Faculty wishes to enhance the already strong links between teaching and research.
A broad range of methods for teaching and learning are in use, but focusing on enquiry-based study, with opportunities for individual and group project work at all levels. Expansion of the use of e-learning facilities across the Faculty to support face-to-face teaching will continue. The Faculty aims to ensure a smooth progression from pre-university study to postgraduate research training and employment for students with diverse needs. To achieve this, existing programmes will continue to adopt and adapt best practice from across the Faculty and College and beyond. For example, diagnostic testing and tutorial support for new students, integrated programmes of transferable skills training, and the provision of a wide choice of options, particularly in the later years of undergraduate study, which provide exceptional opportunities for specialisation and exposure to the latest concepts and techniques.

4.4 Tanaka Business School
The vision of the Tanaka Business School is to continue to offer world class education and research opportunities. The School will continue to offer the intercalated BSc in Management for the Medical School, a management option for joint honours undergraduate students whose ‘home’ department lies in other faculties, as well as electives for a larger group of students. It has revised and re-organised its Master’s provision, offering several specialist MScs as well as three different routes to the MBA qualification. The Doctoral programme thrives with about 80 research students.

The School has moved recently and rapidly to embed e-learning in its learning and teaching. The enhancement and greater use of blended and e-learning across all programmes is an important priority in learning and teaching. It wishes to enhance staff capability in this area and further enhance and expand its use, including through greater use of on-line tutorials and more firmly incorporating the ‘e’ element into the learning process. Providing further professional development for postgraduate students who undertake some tutoring activity is also a priority for the School. Supporting teaching research and innovation, such as through the College grant schemes, will continue to be important. Other priority areas for development are language support, especially for Master’s students, to be initiated by a pre-sessional English language diagnostic test. Another priority area is enhancing the understanding of both staff and students of what constitutes plagiarism, how it can be avoided and how it can be detected.

4.5 Humanities
A number of activities take place under the Humanities banner, such as the programme of humanities and language courses available to all undergraduates and counting as credits towards degrees, and the English Language Support Programme (ELSP) providing linguistic diagnosis and English courses for all students in the College for whom English is not their first language. Humanities runs four popular and innovative Master’s programmes, in Scientific, Technical and Medical Translation, Science Communication, Science Media Production, and Creative Non-Fiction Writing. In addition it is the intention to expand research in these areas. Humanities also provide some bespoke courses for specific departments.

The undergraduate Humanities Programme will be reviewed over the strategy period. In the Languages area, joint degrees in scientific disciplines with a language are being developed. In both language and non-language Humanities it is hoped to make it easier for students to take more Humanities options, and especially to progress in a language or other disciplinary study over two or more years. The English Language Support Programme is likely to expand its activities for both undergraduate and postgraduate students, reflecting an increased need across the diverse student body. Humanities will continue to explore new possibilities in professional areas that relate to the current portfolio.

4.6 The Graduate School of Engineering and Science and the Graduate School of Life Sciences and Medicine
The Graduate Schools exist in order to enhance the quality of postgraduate education at Imperial. All postgraduate students automatically become a member of one of the two Graduate Schools as soon as they start their postgraduate studies. Membership means that Imperial postgraduates become part of a wider community of students and this helps towards broadening and enriching their academic experience. The Graduate School of Life Sciences & Medicine (GSLSM) covers all
students in the Faculty of Medicine together with those students studying life science subjects from the Faculty of Natural Sciences. This comprises approximately 1500 students. The Graduate School of Engineering & Physical Sciences (GSEPS) covers all students in the Faculty of Engineering, the Tanaka Business School and Humanities Programme students, together with those students studying physical sciences from the Faculty of Natural Sciences. This comprises 2600 students.

The Graduate Schools have a number of roles. These include a quality assurance role, as they have delegated responsibility from Senate for the regular review of Masters' programmes, considering and initiating proposals for new Masters' courses, approving changes to Masters' programmes and disseminating best practice across the College. The Schools also promote common, best practice in research supervision and are implementing a regular review process of PhD provision within departments/divisions to complement the review of courses. They also provide a suite of transferable skills programmes for all research students and, where appropriate, courses are also available to taught students. Developing generic research, professional and personal skills is an important part of postgraduate training and the Schools play a major part in the College response to the Roberts agenda. The courses the Graduate Schools provide are designed to complement existing departmental/divisional training programmes and increasingly the Graduate Schools are playing a part in monitoring and overseeing the quality of these department/divisional courses. The Graduate Schools transferable skills programme includes a three day residential course in research and professional skills development which all first year research students are strongly encouraged to attend. Research students are required to attend a specific number of the Graduate School courses in order to transfer their registration to PhD. The Graduate Schools organise a number of social activities for postgraduates throughout the year, these include distinguished guest lectures, welcome events and research symposia with a student poster competition. These events promote intellectual discussion and exchange of ideas across disciplines. The Graduate Schools also play a part in postgraduate recruitment to the College and organise the main Postgraduate Open Day. A recent innovation has been ROLE - Researchers On-Line Evaluation, an electronic evaluation tool to seek student feedback on PhD programmes and on College facilities. This is a first step in addressing the next stage of the agenda, namely assessment of the success of training provision.

The Graduate Schools have established themselves as an integral and vibrant part of College life. During the strategy period the Graduate Schools will continue to evolve their role in respect of all their functions. Several other parts of the strategy incorporate areas in which they are active, including e-learning and periodic quality assurance reviews.

5. Supporting Learning and Teaching

A number of academic support service units and other strategies contribute directly and indirectly to enhancing the student experience and the reputation of the College for learning and teaching.

5.1 Equality and Diversity

The College is committed to ensuring it treats its staff and students fairly and it recognises the benefits that come from having a diverse staff and student body. There are comprehensive equal opportunities policies and procedures in place for both staff and students, and two major committees are in place to facilitate decision-making and associated action. Two professional staff – the Disabilities Officer and the Equalities and Diversity Consultant – are employed to help ensure College equalities targets are progressed. All significant staff and student-related activity is monitored and the results are analysed regularly so that changes to policies and procedures can be introduced as required. In addition there is a part-time post that works closely with the Disabilities Officer and is concerned with the technical IT aspects of accessibility and provides help in these regards to disabled staff and students.

Equal opportunities issues are integrated into the development activities of the Staff Development Unit (SDU) and the Centre for Educational Development (CED). The former concentrates on
5.2 Widening Participation Strategy
The College is committed to continuing its policy of not discriminating between applicants on any grounds other than academic ability, potential and commitment. A high priority is placed on maintaining admissions standards and attracting high calibre students from all backgrounds. The substantial Outreach Programme is designed to raise the awareness of, and aspirations towards, higher education in order to increase the overall pool of candidates, not only to Imperial but to the university sector in general. The College will continue its wide range of Outreach activities such as summer schools, school visits, science and engineering days, student volunteers in schools, the INSPIRE scheme to enable post-doctoral researchers to spend half of their time in schools and METRIC, which provides on-line assistance with mathematics. INSPIRE has spawned other schemes for active scientists to work with schools to communicate the excitement of studying science and adopting it as a career.

There are also a number of mechanisms in place to support disadvantaged students once at College and help them to succeed. These include the English Language Support Programme, METRIC and remedial mathematics classes, and the Disabilities Officer who has within her remit the responsibility for organising disability awareness workshops. It is our intention to expand these activities.

5.3 The Library
The Library plays a significant role in student learning. It aspires to be dynamic and innovative, serving the needs of research, learning and teaching and with an international reputation for excellence that fits with the status of the College. It places a heavy emphasis on access, including through electronic access to journals, books and databases from the desktop, self–service facilities, 24/7 opening of the Central Library during the three month undergraduate examination period, and having in place assistive technologies and support for students with particular learning needs. The physical library buildings are an important focus for student learning on campus. The Library Development Programme, a major College project, will lead to the redevelopment of library space to create high quality study environments which support the range of learning modes and technologies used in College, from collaborative group work to independent research and study.

The Library has championed the cause of information literacy both within the College and nationally. Information literacy empowers students to have the confidence and ability to retrieve, evaluate, exploit and manage information. It also enables them to understand the legal, economic and social issues that surround its use, including the importance of good citation practice and being plagiarism ‘aware’. Information literacy teaching is embedded within 75% of the undergraduate and postgraduate taught course curricula and the aim is to achieve 100% penetration by 2008. Information Literacy sessions are also included in the Graduate Schools’ programme of transferable skills. In 2003-4 the Library created an online information literacy course called ‘OLIVIA’ (On-line Virtual Information Assistant), designed in self-contained units so it can be used independently and selectively according to students’ needs, but usually in a blended format. It is expected that students will develop a transferable methodology, applying what they have learnt to any subject or task throughout their degree course and into the work place. A new online course for research postgraduates is also being developed as part of the Roberts agenda and will be ready in 2006-7.

5.4 Information and Communication Technologies Division
IT infrastructure for learning and teaching is maintained and supported by the ICT Division, which strives to ensure that the College has appropriate IT infrastructure to underpin its teaching and research and maintain its international reputation for excellence. The ICT Division is a member of the QARC and an active member of the College e-Learning committee. It is also represented on Senate.

ICT supplies the usual supports for learning and teaching such as a high speed network; e-mail services; PC based teaching clusters, including provision of some 400 specialist applications.
software used in teaching; and a College-wide virtual learning environment (VLE). In addition, ICT provides a number of student oriented services, including: running the student on-line evaluation systems; working with the College Disabilities Officer to provide appropriate specialist software and hardware for those students with disability; managing the student halls network and disk space for students.

Over the strategy period priorities for ICT include working with Faculties and Schools to understand their teaching and learning needs and provision of the necessary technology support for these. This includes: provision and expansion of the use of e-learning technologies; infrastructure support for use of multi-media in teaching materials, e.g. streaming video, pod and vod casting and provision of standard AV equipment to support these; evaluation, and if appropriate adoption, of novel technologies used in teaching, such as Web 2.0 technologies (e.g. blogs and wikis); investigation of e-assessment and use of computers in the examination context, using both the VLE and other environments e.g. teaching clusters.

Continued improvement of the basic IT infrastructure, such as enhanced network bandwidth, file and email space, PCs used for teaching and reliability of central systems including appropriate Disaster Recovery and Business Continuity arrangements, is planned. In addition, ICT will work with Faculties and Schools to investigate systems to reduce the administrative overhead of teaching such as tracking of coursework, storage of and online access to degree results, increased student self-service access to the student admissions system and to provide guidance on technical IT and AV requirements for new teaching and learning spaces.

5.5 Imperial Volunteer Centre
The Imperial Volunteer Centre was founded in 2002, between then and mid 2006 it has had nearly 1000 volunteers involved in over 330 projects, with over 80% of volunteers being undergraduate or postgraduate students. A major aim of the Centre is to increase student employability through developing transferrable skills. The Centre provides a high quality service and continuous support to volunteers. Support takes various forms, including an opportunity for volunteers to participate in an externally verified accreditation programme. The Award Scheme Development and Accreditation Network offers nationally recognised qualifications and the Certificate in Community Volunteering (CCV Level 2) provides a means to recognise and accredit the transferrable skills needed to participate effectively in various voluntary activities. Over the next three years it is intended to provide new learning experiences in different environments, and to introduce a College-wide community engagement strategy to ensure the College engages with the community through longer term partnerships that are responsible, relevant and sustainable.

5.6 Centre for Educational Development
The role of the Centre for Educational Development is to work collaboratively with all other parts of the College to support, enhance and raise the profile of all types of learning and teaching. It seeks to fulfil this remit by working to the highest standards and seeking to adopt innovative approaches suited to the College organisation and mission. Its academic staff are experienced teachers in universities, as well as being education specialists; most still teach undergraduate or postgraduate students and are active in educational scholarship and research. CED offers College staff a range of programmes, workshops, networks, one-to-one and small group meetings, grants and other funds, seminars, and electronic learning to support learning, teaching, assessment, curriculum development and supervision practices and provides good opportunities for continuing professional development. CED is mindful of the role it can play in encouraging staff to consider equality and diversity issues, not only raising these indirectly, but also embedding them as major areas for consideration in key topics such as curriculum planning, session design, and recruiting and supervising research students. The Centre is involved in committees, working parties and initiatives across the College that enhance and guide learning and teaching, including being a member of the QARC and the e-learning committee.

CASLAT (the Certificate of Advanced Study in Learning and Teaching) is compliant with national professional standards and Higher Education Academy (HEA) accredited. It has been compulsory since 2004 for all probationary non-clinical lecturers who lack extensive prior experience or a
similar qualification. Others take the programme on a voluntary basis. It also runs a very successful blended learning programme for those who support learning (the Supporting Learning and Teaching Programme). Continuing professional development for learning and teaching is logged, in future a new Oracle application being introduced over the period of this strategy will be used for this purpose.

Priority areas for the Centre for the immediate future include greater use of e-learning in its own practices, further opportunities for teaching development within the Roberts agenda, continuing to keep what it offers the College fit for purpose, keeping abreast of developments arising from the national professional standards for teaching and supporting learning in higher education, and promoting continuing professional development for experienced staff. Take-up of opportunities is anticipated to continue to grow.

5.7 Centre for Professional Development
The Centre for Professional Development runs specialist in-depth postgraduate and post-experience, short courses for an international clientele with a variety of backgrounds. These activities vary in length from one day to up to three months; courses take place on campus and where appropriate on company premises and overseas. Some courses are attended by staff and postgraduate students of the College. Imperial is well placed to contribute to meeting such needs; doing this is an integral part of the institution’s learning and teaching activities. The activities of the Centre for Professional Development enhance the reputation of the College and its staff, with quality being closely monitored to ensure high standards are maintained. Where applicable the face-to-face nature of CPD activities is now being augmented by the provision of e-learning via Web-CT, whereby registered participants are provided with password protected access to material. It is hoped through this approach to enhance the effectiveness of the essential face-to-face interactions.

5.8 Human Resources
The College’s HR Strategy has been used to leverage the attraction, reward and development of staff who enable our teaching and research to flourish. In addition to the push to improve the general effectiveness of support staff, new polices and procedures have been put in place which help to assure and enhance teaching quality. For example, those who sit on selection panels must be trained and panels should be as diverse as possible; changes have been made to the recruitment and selection guidance to help ensure rigorous assessment at interview of the level of commitment to, and skills in, teaching; a new performance and development process was introduced with a major focus on teaching; there is no pay ceiling for the majority of academic staff. Each year increasing numbers of staff are rewarded for teaching-related activity. During 2006-9, HR will continue to review the impact of these policies and procedures and changes will be made as required.

The College’s key requirements for staff development and educational development activities are that they support our strategic objectives. HR’s Staff Development Unit (SDU) works closely with the CED to provide a comprehensive and complementary range of staff development provision, thus helping to ensure that teaching staff and teaching support staff are of the highest quality. While the CED focuses on the development of learning and teaching, the SDU is responsible for facilitating the development of management skills and personal effectiveness skills.

While teaching has always been an essential component for academic promotion, significant changes were made to the academic promotions procedure in 2003-4, particularly in relation to the contribution that staff make to the education of students. The impact of these changes was reviewed extensively following the first year of operation. Changes were made to the application form to encourage staff to provide better information about their education-related achievements. A further review was undertaken of the 2004-5 round. Changes will be made to education criteria for 2006-7. The reviews have indicated that the recognition of education has increased: more candidates provide hard evidence of contributions in their applications and interviews and Heads of
Department/Divisions are putting forward more candidates for promotion because of their strong contributions to education.

6. E-Learning Strategy

6.1 Development of policy, aims and organisation
The College developed its first e-learning strategy for the 2003-2006 period. This successfully guided the College in establishing a distributed management model to achieve e-learning goals, through a partnership between central and faculty/school based management and initiatives. The period saw greater awareness, across more parts of the College, of the use of the range of learning technologies and a move from using a virtual learning environment only in small scale, specialised pilots to much wider usage. HEFCE e-learning funds in 2005-6 were timely in enabling a number of developments to proceed more quickly than might otherwise have been possible; College teaching development grants also continue to be invaluable in the development of e-learning. E-learning has reached the stage in many disciplines and parts of the College where it is an integrated part of learning and teaching and this is reflected in its incorporation into the wider learning and teaching strategy. The use of computers, online information systems and global networks has been a key aspect of learning and teaching at Imperial for many years and is an expectation of UK and international students coming to a world class institution.

The three aims for the 2006-9 period are to:

A. enhance student learning by making appropriate and effective use of existing and emerging technologies in learning, teaching and assessment;
B. consolidate and develop the educational, technical and organisational capabilities necessary to sustain e-learning;
C. promote the co-ordination and efficient use of financial, staff and technical resources by adopting common standards and systems, where these are applicable.

E-learning operates through a central committee, the chair of whom plays an influential part in e-learning matters in the College; central support services and faculties are also represented and the faculty/school e-learning technologists are part of the committee. College policy is to provide some central resources for e-learning. This happens primarily via ICT, who provide technical support for WebCT as the College’s chosen VLE, and the Centre for Educational Development, which promotes appropriate pedagogic usage of technology and supports and facilitates contact between the learning technologists. The responsibility for implementation and development of WebCT and other technologies to suit particular disciplines, levels and circumstances, is devolved to the constituent parts of College. Each of the faculties and the Business School employs one or more learning technologist who takes a lead in this area and works collaboratively across the faculty/school. Several support services are themselves users of learning technologies, e.g. the Library, and the CPD and CED.

Looking ahead, the faculties, schools and support services have identified their goals for learning technology over the next three years (see other sections). These place differing emphases on the use of a VLE and other technologies and in the extent to which the technologies are already in use or are to be introduced. Central organisation and services will continue to evolve so as to support, share and disseminate, and where appropriate lead, these developments. Among College wide initiatives for this strategy the use of e-assessment ranks highly and a number of pilots will run during the earlier parts of this strategy. How e-learning is supported and co-ordinated across a range of services and structures in College will be subject to continual review.

6.2 e-Learning Objectives
Ten objectives are identified, together with the main aims they address:

- enable all students to access and use e-learning systems, and associated facilities and support services (A, B);
o enable all staff who support learning and wish to use e-learning systems, facilities and support to do so (A, B);
o raise staff awareness of, and practical expertise in e-learning, teaching and assessment, including staff in academic, administrative and a range of support roles (A, B);
o foster the principled and systematic use of learning technologies especially through the expertise of knowledgeable and innovative learning technologists and academic innovators (A, B);
o monitor external and emerging developments in e-learning, with a mind to their incorporation into College programmes and educational initiatives (A, B);
o identify examples and replicable models of effective e-learning by evaluating practice in learning, teaching and assessment (A, B);
o make best use of the College’s learning spaces, technical facilities and support services (B, C);
o ensure plans for educational, technical and estates initiatives take account of e-learning: its potential benefits, constraints and organisational consequences (B, C);
o monitor, share and co-ordinate where sensible e-learning developments across the College (B, C);
o establish internal funding streams for e-learning whilst continuing to seek external funds and to identify strategic partners (B, C).

7. The College-wide Priorities for using HEFCE TQEF Funds for 2006-9

The Higher Education Funding Council for England (HEFCE) has identified four priority areas that it wishes to see mentioned in learning and teaching strategies in universities. These are:
o ensuring that teaching is informed and enriched by research;
o supporting continuing professional development activity, enabling staff to meet agreed national teaching standards and building a record of attainment against these standards;
o broadening the learning experience through support for student volunteering;
o supporting success and progression for students with diverse needs.

Furthermore,
o HEFCE has asked institutions to indicate how they are meeting their positive duties for equality.

HEFCE’s priority areas/duties fit well with the College intentions and aspirations and are joined by and linked to other areas of priority that the College and its various faculties, schools and services have identified. In line with its mission and aspirations the following broad areas of College-wide activity to support the enhancement of learning and teaching have been identified for 2006-9 and for the use of HEFCE Teaching Quality Enhancement Funds:

A. Continued enhancement of e-learning: the strategy indicates ten key ambitions in this area and many individual parts of the College have identified enhanced use of e-learning as a priority area.

B. Supporting university application, success and progression for students with diverse needs: many parts of the strategy refer to this strategic priority and provide detail of the direction and shape of enhancement. Measures include additional support for the English Language Support Programme, for mathematics teaching, for posts and activities relating to disability and for student skills and employability development.

C. Enhancing the profile of teaching: recent measures and awards will be supplemented to further promote the message that teaching is valued and rewarded.
D. Supporting continuing professional development in learning and teaching for staff, including enabling them to meet national standards and keep a record of attainment: the strategy alludes to expansion of CASLAT and other continuing professional development for staff in learning and teaching. Measures include support for the CED and the activities it undertakes.

E. Maintaining and enhancing the links between research and teaching: these links are already well developed and they will continue to be supported and enhanced.

F. Broadening the learning experience through student volunteering: the strategy reports on the success of the Imperial Volunteer Centre and indicates its future strategic priorities for enhancement.

G. Maintaining College membership and participation in national learning, teaching and student support and student experience related bodies: the College wishes to continue to belong to a number of national bodies and organisations concerned with learning and teaching in higher education, including the HEA.

H. Continued action to support and embed the need to meet a positive duty for equality: many parts of the strategy have mentioned activity and ambitions relating to equality issues, especially around diversity and disability, not least section 5.1. This area continues to be an important part of College policy, action and aspiration.

8. Note on Monitoring and Evaluating the Strategy

The Pro-Rector (Educational Quality) has overall responsibility for monitoring and evaluating the implementation of the College-wide strategy, assisted as appropriate by bodies such as the Quality and Academic Review Committee, the Education Strategy Committee, the Learning and Teaching Strategy Management Group and the e-learning Committee. Many parts of the strategy will be worked towards through a series of mini-projects, each of which includes monitoring and review by the Learning and Teaching Strategy Management Group. Annual reporting occurs through the Annual Operating Statement.