

Programme Specification for the BSc in Medical Sciences with Respiratory Science

PLEASE NOTE. This specification provides a **concise** summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. This specification provides a source of information for students and prospective students seeking an understanding of the nature of the programme and may be used by the College for review purposes and sent to external examiners. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the course handbook or on-line at <https://education.med.imperial.ac.uk/Years/4-1011/resp/index.htm>. The accuracy of the information contained in this document is reviewed by the College and may be checked by the Quality Assurance Agency.

1. **Awarding Institution:** Imperial College London
2. **Teaching Institution:** Imperial College London
3. **External Accreditation by Professional / Statutory Body:** Not applicable
4. **Name of Final Award (BEng / BSc / MEng etc):** BSc (Honours)
5. **Programme Title (e.g. Biochemistry with Management):** **Medical Sciences with Respiratory Science**
6. **Name of Department / Division:** Undergraduate Medicine
7. **Name of Faculty:** Faculty of Medicine
8. **UCAS Code (or other coding system if relevant):** **A136**
9. **Relevant QAA Subject Benchmarking Group(s) and/or other external/internal reference points:** <http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/medicine.pdf>
10. **Level(s) of programme within the Framework for Higher Education Qualifications (FHEQ):**

Bachelor's (BSc, BEng, MBBS)	Level 6
Integrated Master's (MSci, MEng)	Levels 6 and 7
Master's (MSc, MRes)	Level 7

11. **Mode of Study:** **Full Time**
12. **Language of Study:** English
13. **Date of production / revision of this programme specification (month/year):** **October 2010**
14. **Educational aims/objectives of the programme:**

The programme aims/objectives are to:

- teach the scientific basis for the practice of, and research into, respiratory medicine, within the setting of an internationally recognised research institute, taught by world class scientists and clinicians.
- take students from understanding the molecular, cellular and physiological processes of the pulmonary system in health and disease, through to diagnostic investigation and the development and use of conventional and novel therapeutic strategies.

- motivate the students to understand basic and clinical respiratory science through both directed and self-directed learning.
- encourage original thought and lateral thinking.
- encourage critical thinking.
- encourage students to work independently and as a group, to present their thoughts and ideas in writing and orally.
- introduce the principles and practical uses, and limitations, of modern scientific laboratory research techniques and their actual, and potential, clinical applications.

15. Programme Learning Outcomes (please list the programme learning outcomes under the headings that follow. Please also list the teaching/learning methods and strategies used to promote the programme learning outcomes. Module learning outcomes can be listed within Module Handbooks and are not required for this section):

Institutions have an obligation to respond to individual needs and must have due regard to the need to eliminate unlawful disability discrimination and to promote equality of opportunity. To meet the expectations of the Disability Equality Duty (DED), institutions should be pro-active in anticipating the variety of possible requirements that disabled students may have, rather than making adjustments for students on an ad hoc basis. This document should list all the skills needed for students to meet the learning outcomes of the programme and may be used by the College's Disability Advisory Service when considering reasonable adjustments to assessment. You may find the following link to the College Disability Advisory Service useful when completing this section: <http://www3.imperial.ac.uk/disabilityadvisoryservice>

1. Knowledge and Understanding

Knowledge and Understanding of:

- The epidemiology of lung disease and its impact both nationally and globally
- The molecular and cellular mechanisms that lead to pulmonary inflammation (eg in COPD, asthma, acute lung injury, cystic fibrosis and idiopathic fibrosis)
- The molecular and cellular mechanisms of lung cancer
- The molecular and cellular mechanisms of infections of the respiratory tract
- The role of environmental factors in these processes (eg smoking, allergy)
- The role of specific endogenous biological mediators in the healthy and diseased lung
- The principals and techniques used to diagnose lung disease and the rationale underlying treatment
- The use of established guidelines in clinical practice
- The principles of drug development, from discovery to clinical application, for lung disease
- The principles and techniques for laboratory investigation and research into lung disease
- Developing hypotheses, experimental design and research strategies
- Critical evaluation of scientific literature
- Ethical use of animal models to investigate mechanisms of lung disease

Teaching/learning methods and strategies

There is an introductory 2 week foundation course at the start of year 4. This will revise basic respiratory anatomy, physiology and pharmacology. In addition, students will also develop the skills needed for a science year such as critical appraisals of literature and experimental design. There follows 3 Respiratory Science BSc modules and a project (or 2 further specialist study modules) in the science year. The modules are multi-disciplinary covering molecular cellular biology, histopathology, physiology, clinical, and novel investigative and diagnostic procedures in a research-active environment. The course is delivered as clinical and scientific seminars, PBL sessions, discussion tutorials, literature reviews, oral presentations, scientific debates, computer-based projects, laboratory practicals, visits to outpatient clinics, ward rounds, clinical investigations, histopathology and microbiology laboratories and includes self-directed course work. Students also attend the British Association for Lung Research symposium as guests of the British Thoracic Society at their winter meeting in December.

Reading lists supplement tutorial discussions and PBL sessions, oral presentations and scientific debates; this broadens and consolidates the seminar sessions and encourages independent thought, critical thinking and oral communication skills. There

are also data-interpretation exercises. An extended laboratory practical is reported as a scientific paper. Thus students learn to work independently and as a team, they acquire skills to search databases and libraries, to interpret data, as well as learning the art of oral presentation.

Assessment of the course is through a combination of unseen written examinations, course work in the form of essays, written laboratory reports in scientific paper format, oral presentations, scientific debate, data interpretation and individual research project report and presentation.

2. Skills and other Attributes

Intellectual Skills (lateral and critical thinking, logic):

Be able to:

- Critically appraise the scientific literature
- Analyse and interpret clinical and scientific information/data
- Formulate and test hypotheses
- Design, execute and report a programme of research

Teaching/learning methods and strategies

Intellectual skills are developed using the methods described above. Specifically, appraising the scientific literature takes place during written essays, written practical reports, scientific debate, tutorial discussion and PBL sessions and oral presentations. Analysis and interpretation of data also occurs during these sessions, but also takes place during specific data interpretation exercises and the laboratory practicals that are performed throughout the course. The ability to formulate and test a hypothesis and to carry out a programme of research is covered during the laboratory practical sessions and research project. Students' skills are monitored and feedback provided in group sessions and on an individual basis.

Assessment of intellectual skills includes course work, unseen exams and project work.

Practical Skills (experimental design, data analysis, research skills):

Be able to:

- Generate hypotheses, plan and execute laboratory experiments
- Utilise laboratory and information-based technology to test hypotheses and generate data
- Analyse and determine the significance of experimental data using computer software
- Report and discuss the experimental findings in writing and orally
- Appraise the significance of the findings in the context of other, similar research in the literature.

Teaching/learning methods and strategies

Practical skills are developed using the methods described above. Specifically, the students perform a number of focused laboratory practicals, lasting from 3 hr to 2.5 days. They are expected to either understand the original hypothesis, or develop their own hypothesis. Students are expected to perform laboratory experiments, to generate, illustrate and then interpret the data by observation and use of computer software. This builds on knowledge acquired in 'Science and the Patient' teaching in years 1 and 2. In the Respiratory Science year, the students provide written reports in the form of a scientific paper as part of the course assessment. They also present their results as oral presentations for assessment.

Assessment is via written reports of laboratory practicals, oral presentation/discussion of laboratory practicals, data interpretation, coursework assignments and a research project dissertation.

Transferable Skills (initiative, group work, independent thought etc):

Teaching/learning methods and strategies

Be able to:

- Communicate effectively through written reports, oral presentation and computer-aided audio-visual technology
- Apply statistical skills
- Work independently and as part of a team
- Manage time and resources
- Use information and communications technology
- Assimilate and critically evaluate information from search libraries and databases
- Learn independently and effectively to enable continued professional development

→ **Transferable skills** are developed using the methods described above.

Written reports, oral presentations and use of computer-aided technology are integral to each module via essay assignments, practical reports, oral presentations and debates.

Fundamental statistical skills are taught during the 'Science and the Patient' modules in years 1 and 2, and extended during the Respiratory Science year during the two-week Introductory module and further substantiated through the year with seminars and as components of practical projects and data interpretation exercises.

Students work independently for oral presentations and course assignments, and work in groups for scientific debates, laboratory practicals and during clinical assignments.

Timetabled module assignment deadlines, examinations and project deadlines facilitate management of resources and time.

Use of information and communication technology, its assimilation and critical evaluation is developed as a component of coursework, course assignments and during projects.

The course is constructed to include time for open discussion and critical appraisal of the current module. The students are encouraged to enter into, and to open up, discussion. The students are also encouraged to think laterally and to work independently.

Written reports, oral assessments, debates, course work, project work and examinations test all these skills.

16. The following reference points were used in creating this programme specification (please choose from the following and add any other external reference points used: FHEQ, European Higher Education Area (EHEA), Course Handbook, Subject Benchmark Statements (where appropriate), Professional Statutory and Regulatory Bodies (PSRB) documents etc)

- Student Handbook for Course;
- QAA guidelines for preparing Programme Specifications (www.qaa.ac.uk).

17. Programme structure and features, curriculum units (modules), ECTS assignment and award requirements (for each year of study, please complete the structure for each term (including what modules or course units will be taken and indicate whether there are any pre-requisites). Please also provide information about progression between years. Please indicate whether placement activity will apply to your programme, for example, year abroad):

The degree programme is offered as a full-time course embedded within the MBBS degree course and leads to the **BSc Honours Degree in Medical Sciences with Respiratory Science**. All students

take the same MBBS first, second and third year course modules. Students taking the Medical Sciences with Respiratory Science degree option complete a specialist two-week Introductory Module at the beginning of the first term of year 4. Examination of this aspect of the course is formative. Year 4 core modules 1-3 are examined in the spring term. The BSc year continues with students taking either a full-time 10-week independent research project or a specialist course, each equating 2 modules. Students taking the research project are assessed by oral presentation and project write-up. Students taking one of the three available specialist courses are assessed by oral presentation and mini-project write-up.

Year One: Not applicable

Term one:

Term Two:

Term Three:

Year Two (if applicable): Not applicable

Term one:

Term Two:

Term Three:

Year Three (if applicable):

Term one: 2-week **BSc Foundation course in Cardiopulmonary Sciences** with the following aims and objectives:

- Analyse and interpret data, using relevant statistics where appropriate
- Understand the concept of developing and testing a hypothesis
- Understand the principles of experimental design
- Understand the concept of plagiarism and how to avoid it
- Have had experience of written scientific communication
- Understand the fundamental principles and practice of scientific research
- Appreciate the legal and ethical issues surrounding scientific research
- Critically review scientific literature

Term Two:

Term Three:

Year Four (if applicable):

Term One: The Science year begins with an Introductory Module. The aim of this short module to equip the students with the skills required to complete a successful BSc. To this end, the students will be given a brief revision of respiratory anatomy, physiology and pharmacology. The students will then be taken through a series of tutorial sessions to improve their abilities to search and appraise the scientific literature, communicate scientific concepts verbally and in writing, and learn more about experimental design. The tutorial programme forms the backbone of this module, during which students will be working with the same assigned tutor throughout to enable continuity and the giving of targeted feedback where necessary. This introduction is then followed by Module 1, **Investigation, management and new therapies for lung disease: bench to bedside**. This module takes students from the pathophysiology and clinical presentation of a range of inflammatory diseases of the respiratory tract (including asthma, chronic obstructive lung disease, cough, cystic fibrosis, sleep disorders and respiratory muscle dystrophies) to the rationales behind development of new therapies. There is a critical evaluation of the 'pros and cons' of current treatments for inflammatory lung diseases. This leads on to consideration of evidence-based scientific and clinical strategies for the development of new and improved drugs.

This module will be followed by a module on **Molecular Cell Biology of the Lung in Health and Disease** (Module 2), which covers inherited and acquired molecular mechanisms that contribute to lung diseases, the underlying pathology and possible therapeutic strategies and management of the diseases (eg. chronic obstructive lung disease, cancer, asthma, acute lung injury, fibrotic lung disease, infant respiratory distress syndrome, sudden infant death syndrome, and hemangiectasis). Students will learn about the molecular basis of a variety of lung diseases. They will also learn about the state of the art technology used to detect such abnormalities and understand the pathophysiology of the disease at the cellular and clinical level. Furthermore, Module 2 explains how the many functions of the lung are regulated by a complex network of highly specialised cells releasing and responding to a discreet number of locally acting mediators with paracrine and autocrine activity. Mediators include nitric oxide, eicosanoids, cytokines, cortisol, bradykinin and histamine. The module demonstrates the molecular, cellular and physiological contribution of these mediators to lung development, normal pulmonary homeostasis and lung disease.

Term Two: The final taught module in this course is **Infectious and allergic lung diseases**. This module deals with the cellular and molecular mechanisms that underlie allergic hypersensitivity and infection. The role of both environmental and genetic factors in the initiation and exacerbation of allergic diseases such as asthma, rhinitis and dermatitis and the scientific understanding of respiratory infection by inhaled pathogens and their treatment will be considered. The global and national burden of lung disease will also be studied with particular emphasis on global threats such as bird flu and the global rise in COPD.

Examination: The students are examined on core modules 1 – 3 in February. The students then commence their research project or specialist course.

Term Three: The summer term commences with continuation of the research project or specialist course. At the end of these, students are assessed by an oral presentation of their studies and a project write-up (approximately 5000 words) or a mini-project write-up and two other pieces of coursework, respectively.

18. Support provided to students to assist learning (including collaborative students, where appropriate). (The description should include information about the induction programme, welfare and pastoral support, library and other facilities available to students, personal tutoring, and access to teaching and learning support services, English language support, feedback to students and dissemination of actions taken as a result):

- A course guide provides more detailed information (also published electronically).
- The Medicine Undergraduate Teaching Intranet.
- Additional information provided on Faculty/Division Intranet.
- Extensive library (7-day, 24h opening in term time) and other learning resources and facilities at South Kensington campus and specialist facilities 9.00am-9.00pm) at Royal Brompton campus (National Heart & Lung Institute).
- Computing, printing and copying facilities (including scanning) with extended daily access, and providing e-mail, on-line journals, journal databases (e.g. Web of Science, Medline). Log-on facility (VPN) from outside College.
- Modern teaching laboratories and access where appropriate to adjacent research facilities.
- A staff - student liaison group.
- Research Seminar Series, which run weekly at the NHLI Guy Scadding Building.
- In addition to the Course Director and Module Leaders, all students are allocated personal tutors whose role is both pastoral and academic.
- Student email and open personal access to Respiratory Science BSc teachers, including the Course Director, Module Leaders and the Deputy Head of Department (Teaching).
- Access to the Officers of the Medics Student Union (based in the Sir Alexander Fleming Building).
- Access to the Senior Welfare Tutor for Year 4 (BSc), Faculty of Medicine.
- Access to the Director of Education Medicine.
- Provision of an in-course welfare tutor
- Access to the Faculty Education Office (FEO) who provide a first point of contact for all matters concerning students.
- Access to student counsellors on the South Kensington site.

- Access to Teaching and Learning Support Services, which provide assistance and guidance, e.g. on careers.
- Opportunities for students to conduct their Final Year Research Projects in other Departments/Centres within Imperial College.

19. Criteria for admission:

All students will have met the minimum entrance requirements for the School of Medicine MBBS/BSc programme and have successfully completed years 1, 2 and 3 of the course.

20. Processes used to select students:

The selection of students for the BSc operates via student BSc choice submission and allocation of the students to BSc based on their submitted choices and academic performance in Years 1 to 3. A BSc Appeals procedure is in place to ensure that students unsatisfied with their original BSc choice and allocation can be considered for re-allocation to another course, subject to available places and satisfactory academic performance.

21. Methods for evaluating and improving the quality and standards of teaching and learning

Information regarding College-level practices is outlined below. Please amend this as appropriate to incorporate details of departmental activity.

a) Methods for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards:

The external examiner system and Boards of Examiners are central to the process by which the College monitors the reliability and validity of its assessment procedures and academic standards. Boards of Examiners comment on the assessment procedures within the College and may suggest improvements for action by relevant departmental teaching Committees.

The Faculty Studies Committees review and consider the reports of external examiners and accrediting bodies and conduct periodic (normally quinquennial) and internal reviews of teaching provision. Regular reviews ensure that there is opportunity to highlight examples of good practice and ensure that recommendations for improvement can be made.

At programme level, the Head of Department/Division has overall responsibility for academic standards and the quality of the educational experience delivered within the department or division.

Most of the College's undergraduate programmes are accredited by professional engineering and science bodies or by the General Medical Council. Accreditation provides the College with additional assurance that its programmes are of an appropriate standard and relevant to the requirement of industry and the professions.

Mechanisms for evaluation of teaching, learning, assessment, the curriculum and outcome standards

- Annual course review undertaken by the Faculty of Medicine BSc Quality Assurance group of the Education Committee Year 4 – BSc. The review will be considered by the Education Committee Year 4 – BSc and will cover all aspects of the course including progression and degree statistics, External Examiner Reports, student feedback and peer review [see below], feedback from module leaders and other staff.
- Staff – Student Liaison Group Year 4.
- College *Student On-Line Lecturer Evaluation* (SOLE) and in-house course questionnaires organised by module convenors.
- Biennial staff appraisals by Section Heads, reviewed by the Head of Department.
- Peer teaching observations, which are monitored by the Deputy Head of Department (Teaching).
- External Examiner reports.
- Division Executive Committee.
- Review by the Quality Assurance Agency.
- Reviews by the GMC.

b) Committees with responsibility for monitoring and evaluating quality and standards:

The **Senate** oversees the quality assurance and regulation of degrees offered by the College. It is charged with promoting the academic work of the College, both in teaching and research, and with regulating and supervising the education and discipline of the students of the College. It has responsibility for approval of changes to the Academic Regulations, major changes to degree programmes and approval of new programmes.

The **Quality Assurance Advisory Committee** (QAAC) is the main forum for discussion of QA policy and the regulation of degree programmes at College level. QAAC develops and advises the Senate on the implementation of codes of practice and procedures relating to quality assurance and audit of quality and arrangements necessary to ensure compliance with national and international standards. QAAC also considers amendments to the Academic Regulations before making recommendations for change to the Senate. It also maintains an overview of the statistics on completion rates, withdrawals, examination irregularities (including cases of plagiarism), student appeals and disciplinaries.

The **Faculty Studies Committees** are the major vehicle for the quality assurance of undergraduate courses. Their remit includes: setting the standards and framework, and overseeing the processes of quality assurance, for the areas within their remit; monitoring the provision and quality of e-learning; undertaking reviews of new and existing courses; noting minor changes in existing programme curricula approved by Departments; approving new modules, changes in module titles, major changes in examination structure and programme specifications for existing programmes; and reviewing proposals for new programmes, and the discontinuation of existing programmes, and making recommendations to Senate as appropriate.

The **Faculty Teaching Committees** maintain and develop teaching strategies and promote inter-departmental and inter-faculty teaching activities to enhance the efficiency of teaching within Faculties. They also identify and disseminate examples of good practice in teaching.

Departmental Teaching Committees have responsibility for the approval of minor changes to course curricula and examination structures and approve arrangements for course work. They also consider the details of entrance requirements and determine departmental postgraduate student numbers. The Faculty Studies Committees and the Graduate School Postgraduate Quality Committees receive regular reports from the Departmental Teaching Committees.

Committees with responsibility for monitoring and evaluating quality and standards

- Staff – Student Liaison Group Year 4.
- Faculty of Medicine BSc Quality Assurance group.
- Faculty of Medicine Education Committee Year 4 – BSc.
- Medical Studies Committee.
- Departmental Executive Committee.
- Board and Sub-Board of Examiners – meets to consider final degrees.
- Examinations and Assessments Committee.
- College Undergraduate Studies Committee.
- College Quality Assurance Committee (with student representation).
- Imperial College, Senate

c) Mechanisms for providing prompt feedback to students on their performance in course work and examinations and processes for monitoring that these named processes are effective:

The following regulations and guidelines for feedback on student performance apply:

- There is no definitive College ruling on the means of providing assessment results for coursework other than that that marks should be released to students after confirmation by the Board of Examiners. Course tutors should ensure that the students are given appropriate feedback on their work, within two weeks of submission, by issuing marks indicative of the boundaries within which the actual marks fall (i.e. first class; upper second; lower second; third; pass; fail) according to the following criteria:
- Marks should only be given for coursework which contributes to the assessment of a discrete course element, e.g. practical write-ups, coursework essays.

- Marks should not be issued for major discrete course elements, e.g. final year projects and dissertations prior to the meeting of the Board of Examiners. Detailed information of marks for elements of formal examinations (Part B) can only be released to a student after he/she had submitted a request under the Freedom of Information Act to Registry that is liable to a fee. Granted requests allow the student access to his/her script under supervision by a member of the FEO. The granted requests do not allow copying of documents or subsequent discussion of assigned marks with examiners.
- Marks for any element of work should be released simultaneously to the entire cohort of students after undergoing departmental moderation procedure
- Students must be informed that all marks released are provisional until confirmed by the Board of Examiners. Any noted justifications for issued marks should be maintained for at least a year.
- Coursework should normally be marked and returned to provide feedback within two weeks of the deadline for submission.
- As good practice, it is recommended that the BSc courses use an approved In-course Assessment Feedback form for feedback on student performance in the in-course assessment of the Part B modules and the BSc Foundation course.

d) Mechanisms for gaining student feedback on the quality of teaching and their learning experience and how students are provided with feedback as to actions taken as a result of their comments:

- Staff – Student Liaison Group Year 4.
- Faculty of Medicine Education Committee Year 4 – BSc - student representative.
- Feedback sessions for each module and SOLE
- Faculty Education Office, Personal Tutors, Senior Welfare Tutor for the BSc (FoM), Course Directors and Module Leaders.
- Vivas with External Examiners.

e) Mechanisms for monitoring the effectiveness of the personal tutoring system:

The BSc Welfare Tutoring system, introduced from 2009/10, is designed to cater for the welfare needs of BSc students coming off the clinical Year 3. In Year 4, the BSc students will retain their clinical tutor but will also have an allocated BSc course tutor. The BSc Welfare tutoring system will be overseen by the Senior Welfare Tutor for the BSc in the Faculty of Medicine, the Head of Undergraduate Medicine, and the established committee structure for the BSc, beginning with the Staff-Student Liaison Group - Year 4 (SSLG 4).

f) Mechanisms for recognising and rewarding excellence in teaching and in pastoral care:

Staff are encouraged to reflect on their teaching, in order to introduce enhancements and develop innovative teaching methods. Each year College awards are presented to academic staff for outstanding contributions to teaching, pastoral care or research supervision. A special award for Teaching Innovation, available each year, is presented to a member of staff who has demonstrated an original and innovative approach to teaching. Nominations for these awards come from across the College and students are invited both to nominate staff and to sit on the deciding panels.

g) Staff development priorities for this programme include:

- College and Faculty of Medicine Staff Development Courses;
- staff appraisal scheme and institutional staff development courses;
- active encouragement of membership of the ILTHE; new Lecturers are expected to take the core teaching course programme offered by the Imperial College Centre for Educational Development and any further courses to enhance career development;
- College Teaching Development and Teaching Research Grant Schemes to fund the development of, and research into, new teaching and appraisal methods;
- Updating professional and IT/computing developments.

22. Regulation of Assessment (you may find the following link useful when completing this section: <http://www3.imperial.ac.uk/registry/information/academicregulations>)

a) Assessment Rules and Degree Classification:

For **undergraduate programmes** classification of degrees will be according to the following range of marks:

First class	70 - 100%
Second class (upper division)	60 - 69.9%
Second class (lower division)	50 - 59.9%
Third class	40 - 49.9%

Where appropriate, a Board of Examiners may award a result of merit where a candidate has achieved an aggregate mark of 60% or greater across the programme as a whole AND has obtained a mark of 60% or greater in each element with the exception of one element AND has obtained a mark of 50% or greater in this latter element.

Where appropriate, a Board of Examiners may award a result of distinction where a candidate has achieved an aggregate mark of 70% or greater across the programme as a whole AND has obtained a mark of 70% or greater in each element with the exception of one element AND has obtained a mark of 60% or greater in this latter element.

Assessment in the BSc in Medical Sciences with Respiratory Sciences

The BSc Introductory module is assessed via course work only. The in-course assessment will comprise one compulsory piece, but this is a formative exercise only.

The BSc, Part B, is assessed via in-course assessment – 2 compulsory pieces for each of the three Part B modules, contributing a total of 30% of the module's mark, and a written examination paper, part of the Part B examination, contributing 70% of the overall module mark.

Part C of the BSc is assessed 1) for students undertaking a BSc Project: via a project write-up, contributing 70% to the overall Part C mark, an oral presentation of the project, contributing 20% of the overall Part C mark, and a mark of the performance of the student during the project, contributing 10% of the overall Part C mark; and 2) for students undertaking a specialist course: via in-course assessment – two pieces contributing a total of 40% (20% each) of the overall Part C mark, a mini-project write-up, contributing 30% of the overall Part C mark, an oral presentation of the mini-project, contributing 20% of the overall Part C mark, and a mark of the performance of the student during the mini-project, contributing 10% of the overall Part C mark.

b) Marking Schemes for undergraduate and postgraduate taught programmes:

The Pass Mark for all **undergraduate** modules is 40%. From October 2008 entry all undergraduates are required to pass all their course units to progress to the next year.

c) Processes for dealing with mitigating circumstances:

For undergraduate programmes: Candidates with mitigating circumstances are not subject to the borderline restrictions but should be considered individually. However, as a general principle, candidates whose marks are more than 5% below the borderline should not normally be raised to the next higher classification. Where the Board of Examiners determines that a higher classification should be awarded extra marks should be applied to bring the final marks into the higher range.

Applications, which must be accompanied by a medical certificate or other statement of the grounds on which the application is made, shall be submitted to the Academic Registrar who will submit them to the Board of Examiners.

d) Processes for determining degree classification for borderline candidates:

For undergraduate programmes: Candidates who fall no more than 2.5% below the minimum mark for a higher honours classification shall be eligible for review of their final classification; this review could include an oral examination or practical test or other mechanism appropriate to the discipline. Candidates whose marks are below the 2.5% borderline may be considered for a higher honours classification where certain provisions apply. Where the Board of Examiners determines that a candidate should be awarded a higher honours classification extra marks should be applied to bring

their final marks into the higher range. Detailed records of all decisions should be recorded in the minutes of the meeting of the Board.

e) Role of external examiners:

The primary duty of external examiners is to ensure that the degrees awarded by the College are consistent with that of the national university system. External examiners are also responsible for approval of draft question papers, assessment of examination scripts, projects and coursework (where appropriate) and in some cases will attend *viva voce* and clinical examinations. Although external examiners do not have power of veto their views carry considerable weight and will be treated accordingly. External examiners are required to attend each meeting of the Board of Examiners where recommendations on the results of individual examinations are considered. External examiners are required to write an annual report to the Rector of Imperial College which may include observations on teaching, course structure and course content as well as the examination process as a whole. The College provides feedback to external examiners in response to recommendations made within their reports.

23. Indicators of Quality and Standards (e.g. accreditation reports):

- Favourable comments by External Examiners.
- High proportion of students achieving a First Class or Upper Second Class Honours Degree.
- Independent review of the quality of the educational provision of the Department by the Quality Assurance Agency subject review and by the GMC.

24. Key sources of information about the programme can be found in (links to course handbook, prospectus, departmental website, syllabus etc):

<https://education.med.imperial.ac.uk/Years/4-1011/resp/index.htm>