Programme Specification for the BSc in Biomedical Science (B900) & BSc in Biomedical Science with Management (B9N2)

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 within Blackboard Learn. The accuracy of the information contained in this document is reviewed by the College and may be checked by the Quality Assurance Agency (QAA)

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:** BSc
5. **Programme Title:** BSc in Biomedical Science or BSc in Biomedical Science with Management
6. **Name of Department/Division:** School of Medicine
7. **Name of Faculty:** Faculty of Medicine
8. **UCAS Code:** B900 & B9N2
9. **Relevant QAA Subject Benchmarking Group(s) and/or other external/internal reference points:** Bioscience
10. **Level(s) of programme within the Framework for Higher Education Qualifications (FHEQ):** Level 6
11. **Mode of Study:** Full Time
12. **Language of Study:** English
13. **Date of production/revision of this programme specification:** November 2014
14. **Educational aims/objectives of the programme**
   - Attract motivated students of high intellectual calibre, both from within the UK and overseas, and teach them in a way that encourages originality of thought and breadth of vision
   - Provide the student with a systematic understanding of the fundamentals of biology, including a coherent and detailed knowledge of human biology and the pathophysiology of disease
   - Provide course content that encourages students to think widely and in depth about the current understanding of biomedical science
   - Integrate transferable professional skills and perspectives into the overall teaching programme
   - Integrate laboratory techniques and practical classes into the academic programme
   - Include options within the course that allow students to develop a broader perspective (e.g.
Nanotechnology)

- Provide a supportive learning environment, underpinned by world class research
- Enable the student to deploy accurately established techniques of analysis and enquiry (statistics, modelling, bioinformatics) including competence in the use of computers
- Have the students attain a level of conceptual understanding that enables the student in their research project and other laboratory work to formulate and develop hypothesis and solve problems using relevant, modern techniques
- Provide the student with the skills to be able to describe and comment on particular aspects of current research and through their course components, tutored dissertation and research project, give the student an appreciation of the uncertainty, ambiguity and limits of knowledge and the ability to assess critically research papers and reviews
- Provide a training in laboratory techniques and research skills to include personal research experience via the BSc Project/Mini-project in their final year
- Develop the student’s skills in communication to both specialist and non-specialist audiences through posters, oral presentation and group work as examples
- Develop the student’s skills for in-depth learning (literature searching, reading and summarising), information gathering and creativity
- Develop the student’s understanding and importance of Transferable Skills which can be utilised during and beyond their degree
- Help the student attain the intellectual rigour required to pursue further professional training
- Produce graduates well equipped to pursue careers in both life and medical sciences, and more broadly in industry and the public sector.
- Integrate transferable professional skills and perspectives into the overall teaching programme
- Integrate laboratory techniques and practical classes into the academic programme
- Include options within the course that allow students to develop a broader perspective (e.g. Nanotechnology)
- For students taking the course with Management: Provide students with a grounding in core management subjects, which will provide an understanding of the management and operating environment of business organisations

15. Programme Learning Outcomes

1. Knowledge and Understanding of:

   **Year 1**
   - the fundamentals of molecular and cellular biomedical science, including: Chemistry & biochemistry of biomolecules; the biology of cells and tissues; Metabolism (including enzymes & energetics); Nucleic acids, genes and genetics; Immunology, infection & pathology;
   - the systems that integrate the human body and its functions;
   - the specific organs and tissues of the human body;
   - basic laboratory practical techniques;
   - the scientific literature and some experience of computer-based information retrieval systems;
   - an improved ability to analyse and evaluate quantitative and qualitative information, including problem solving;
   - competence in communicating information and ideas in writing and orally;
   - appropriate broader professional skills to complement this knowledge and understanding.

   **Year 2**
   - more advanced topics (bioinformatics, pharmacology, epidemiology & global health) supplementing initial teaching from year 1;
   - material developing the teaching of year 1 to an advanced level (applied molecular biology, immunology);
   - consideration of selected pathologies (infectious diseases, biology of cancer);
   - options that focus on the more complex themes (nanotechnology or pharmacology);
   - advanced knowledge through writing a dissertation;
   - experimental design and problem based learning;
   - competence in the use of computers for data analysis, graphical presentation, simple programming, information retrieval and communication.
have acquired a more in-depth knowledge and understanding of a topical area of biomedical science;
be able to discuss and communicate understanding of the extent of current knowledge, appraise novel information critically to generate additional insights;
be familiar with modern research techniques and appreciate the limitations of a particular experimental approach;
have acquired the ability to work safely within research laboratories and gained experience, where appropriate, of a variety of scientific instruments;
be able to appraise critically their own data and those of others;
be able to propose appropriate research strategies, which would further knowledge and understanding within their area of expertise.

Teaching/learning methods and strategies:

Acquisition of this knowledge and understanding through core course in Year 1 and 2, delivered within a series of major themes. All themes contain lectures supported by a range of other learning methods including practical work, tutorials, in-course assessment, computer aided learning, transferable skills, directed and independent study. There are no optional elements within Year 1, but in Year 2 course component options and a Tutored Dissertation are available within term 2. Students are encouraged to read beyond the core curriculum and to develop their interests so that they can make informed choices for their final year option.

2. Skills and other Attributes

Intellectual Skills
- analyse and solve problems relevant to Biomedical Science;
- integrate and evaluate information;
- formulate and test hypotheses using appropriate experimental design and statistical analysis of data;
- plan, conduct and write-up a programme of original research.

Practical Skills
- plan and execute safely a series of experiments
- use laboratory and information-based technology to generate data and hypotheses:
- analyse experimental results and determine their strength and validity;
- prepare technical reports;
- deliver technical presentations;
- use the scientific literature effectively;
- use computational tools and packages.

Transferable Skills
- communicate effectively through oral presentations, computer processing and presentations and written reports;
- apply statistical skills;
- work independently as well as small group learning;
- integrate and evaluate information from a variety of sources;
- use information and communications technology;
- manage resources and time;
- learn independently with open-mindedness and critical enquiry;
- learn effectively for the purpose of continuing professional development

Teaching/learning methods and strategies:

As indicated above.

16. The following reference points were used in creating this programme specification
- Student Handbook for Course;
- QAA guidelines for preparing Programme Specifications (www.qaa.ac.uk).
17. Programme structure and features, ECTS assignment and award requirements

**Year One (60 ECTS) – 5% contribution**

Core teaching over 3 core course themes in Cell & Molecular Biomedical Science, Biology of Integrative Systems and Biology of Specific Systems. Transferable Skills is embedded throughout the 3 themes. Term 1 teaching is partially co-taught with the MBBS students. Terms 2 & 3 will be BMS students only. Students will produce formative and summative in-course assessment throughout the year and undertake a formative exam in Term 1 with summative examinations in Terms 2 & 3.

Cell & Molecular Biomedical Science (20 ECTS) includes:
- Biology of Cells and Tissues
- Chemistry and Biochemistry of Biomolecules
- Immunology, Infection and Pathology
- Introduction to laboratory Techniques in Biomedical Science
- Laboratory Class Practicals
- Metabolism, Enzymes and Energetics
- Nucleic Acids and Gene Expression

Biology of Integrative Systems (20 ECTS) includes:
- Endocrine System
- Haematological System
- Musculo-skeletal and Nervous System

Biology of Supportive Systems (20 ECTS) includes:
- Cardiopulmonary System
- Gastro-Intestinal System
- Hepatic and Renal Systems
- Reproductive System, Development and Aging

**Year Two (60 ECTS) – 20% contribution**

Students will produce summative in-course assessment throughout the year including a Tutored Dissertation (8.5 ECTS) which will be their first major piece of research. Students will undertake summative examinations in January and June.

All students undertake the following courses over the 3 terms:
- Applied Molecular Biology (8.5 ECTS)
- Biology of Cancer (8.5 ECTS)
- Epidemiology & Global Health (4.5 ECTS)
- Immunology (8.5 ECTS)
- Infectious Diseases: Bacteriology, Parasitology and Virology (8.5 ECTS)
- Principles of Pharmacology (8.5 ECTS)
- Specialist Options: Nanotechnology or Pharmacology (4.5 ECTS)

**Year Three (60 ECTS) – 75% contribution (3 Year degree) or 45% contribution (3 Year degree + management)**

Students will submit their preferred BSc choices in Year 2 for Parts A & B and C and will be allocated one of them. The BSc comprises a two-week Introduction to the BSc Course (Part A), which, while relating to specific BSc pathways, will provide generic skills (core scientific skills, techniques and
research methodologies) relevant to all pathways. Part A is assessed through a single piece of in-course assessment that students must pass in order to progress to the next part. Part B is composed of three taught modules, assessed through in-course assessment and written examinations (one per module). Part B is followed by modules 4 and 5 (Part C), which can take the form either of a supervised two-module research project (laboratory- or clinical-based or a systematic review) or a specialist course (one taught module and a mini-project).

<table>
<thead>
<tr>
<th>Pathways</th>
<th>Year 4 (BSc) Modules 1-3</th>
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<tbody>
<tr>
<td>Cardiovascular Sciences</td>
<td>The Science of Congenital Heart Disease and Arrhythmia</td>
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<td>The Science of Heart Failure</td>
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<td>The Science of Vascular Disease</td>
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<td>Endocrinology</td>
<td>Hormone Dependent Systems and Cancers</td>
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<td>Type II Diabetes Mellitus, Metabolism and Obesity</td>
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<td>Neuroendocrinology in Health and Disease</td>
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<td>Gastroenterology and Hepatology</td>
<td>Gene-environmental Interactions: Metabolic, Genetic and Nutritional Disorders of Gut and Liver</td>
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<td>Diagnostic and Therapeutic Principles in Gastrointestinal and Liver Disease (with Emphasis on the Science Underlying Imaging and on Neoplasia)</td>
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<td>Infective, Immunological and Inflammatory Mechanisms in Gut and Liver Disease</td>
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<td>Global Health</td>
<td>Infectious Diseases New and Old: Major Threats, Transmission, Molecular Epidemiology, Control</td>
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<td>The Challenges of New Epidemics: Obesity, Diabetes, Tobacco and Environmental Hazards; From Discovery of Causes to Governance</td>
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<td>Health in Context: Poverty, Health Systems and Governance</td>
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<td>Haematology</td>
<td>Thrombosis and Haemostasis</td>
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<td>Leukaemias, Lymphomas and Multiple Myeloma</td>
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<td>Red Cells</td>
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<td>Immunity and Infection</td>
<td>Inflammation, Immunology, Infection and Wound Healing</td>
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<td>Infection and Host Responses</td>
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<td>Autoimmunity, Tumour Immunology, Transplantation and Tolerance</td>
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<td>Neuroscience &amp; Mental Health</td>
<td>Cellular and Developmental Neurobiology</td>
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<td>Neurological and Psychiatric Disorders of the Central Nervous System</td>
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<td>Disorders of the Mind</td>
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<td>Pharmacology</td>
<td>Principles of Pharmacodynamics and Pharmacokinetics</td>
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<td></td>
<td>Cardiorespiratory Pharmacology</td>
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<td>CNS Pharmacology</td>
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<tr>
<td>Reproductive &amp; Developmental Biology</td>
<td>Hormone Dependent Systems and Cancers: Gynaecology and Endocrinology</td>
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<td>Aspects of Development: Before and after Birth</td>
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<td>Complications: Paediatric Infection and Allergy</td>
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<tr>
<td>Respiratory Science</td>
<td>Investigation, Management and New Therapies for Lung Disease: Bench to Bedside</td>
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<tr>
<td></td>
<td>Molecular Cell Biology of the Lung in Health and Disease.</td>
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<tr>
<td></td>
<td>Infectious and Allergic Lung Disease</td>
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</table>
The research project will be in an area linked to the BSc pathway and has to be completed by the end of the summer term. The submitted project write-up, the oral presentation of project work and assessment of student performance during the project will constitute the final part of the BSc assessment.

The specialist courses, Medical Humanities and Death Autopsy and the Law, are offered to all students. These courses are assessed via in-course assessment, a mini-project written report and oral presentation, and an assessment of the student performance during the mini-project.

Parts A and B account for 36 credits and Part C accounts for 24 credits. Students are required to complete the Introduction to their BSc (Part A). Within Part B, students are assessed by a combination of in-course assessment (normally 2 pieces per module) and 3 summative examinations over 3 consecutive days in February. Students must achieve a minimum of 40% in the combined in-course assessment and examinations to pass each module. Students must pass all three modules to complete Part B. Part C is assessed solely by their BSc Project/Mini-project.

NB: Students are required to complete all in-course assessments set during their degree. Students are only allowed 2 attempts at a summative exam. If the 1st attempt is less than 40% then a resit will be required. Students who fail to achieve the required 40% after sitting their 2nd attempt will be withdrawn from the course.

**Year Four (70 ECTS) B9N2 with Management only**

In this programme, year 3 contributes 40% to the overall mark, and year 4 (Management) contributes 35% to the overall mark.

The Business School structure is different from the School of Medicine BSc pathways in that modules are taught in five-week blocks, with the exception of Accounting, which is taught over ten weeks. The modules available in each term are shown below:

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Business Strategy</th>
<th>Organisational Behaviour and Human Resources Management</th>
<th>Accounting</th>
<th>Project Identification and Development of Project Proposal</th>
<th>Health Services Research</th>
<th>Information Systems and Health Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term 2</td>
<td>Managing Healthcare Organisations</td>
<td>Project Management</td>
<td>Entrepreneurship</td>
<td>Project Continued</td>
<td>Health Economics</td>
<td>Marketing</td>
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<tr>
<td>Term 3</td>
<td>Project continued - completion and presentation of report</td>
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</table>

NB: Students are required to complete all in-course assessments and examinations set during their degree.
18. Support provided to students to assist learning (including collaborative students, where appropriate).

- An induction programme (Year 1) for orientation, introduction to the library, information technology and the Head of Programme, Teaching Fellows and Curriculum Administration
- Student-run ‘Mums & Dads’ scheme for freshers; supported by the ICSMSU and Biomed Soc
- Details of the course, timetables, campus maps, methods and criteria for assessments are available via Blackboard Learn
- Additional College information provided within the A-Z Directory link via Blackboard Learn
- Students are allocated a Personal Tutor for their complete degree, their role is to assist students with personal problems and to advise on pastoral and academic issues
- A dedicated Curriculum Administrator provides a first point of contact for all matters concerning students
- Extensive library (7 day, 24hr opening in term time) on the South Kensington campus
- Dedicated computing, printing, copying/scanning facilities, providing email, on-line journals, journal databases
- A staff-student liaison group which meets each term
- Students have the email, telephone and open personal access to course staff including Head of Programme, Course Directors/Leaders, Senior Tutors, Teaching Fellows and FEO staff
- Access to student counsellors and a wide range of health services provided on the South Kensington site
- Access to Teaching and Learning Support Services, which provide assistance and guidance, e.g. Student Hub, Careers, Student Hardship Funding
- Student representatives are elected within each year of the degree and attend all Staff-Student Liaison Groups as well as collating student feedback, which is sent to the Curriculum Assistant (BSc Programmes) for action and dissemination

In addition, there are student representatives who sit on all Undergraduate Medicine Committees and who meet with staff at Staff-Student Liaison Groups covering all years of the programme. There are also Faculty Education Office (FEO) counters at the four main teaching campuses where students can go for information and advice, in person and by email.

19. Criteria for admission:

A full list of admissions criteria, both for UK and overseas students, may be viewed here: http://www3.imperial.ac.uk/ugprospectus/facultiesanddepartments/medicine/biomedicalscience/entryrequirements

20. Processes used to select students:

The School of Medicine has a comprehensive admissions policy that ensures all applications are dealt with in the same way. When applications are received, they are assessed to make sure that candidates fulfil the minimum requirements. Candidates must:

- have obtained or be predicted to obtain grades in GCSE A and AS levels, International or European Baccalaureate or other acceptable qualifications that satisfy the School of Medicine’s academic criteria;
- sit the 2014 entry BMAT examination; and
- not submit a late application

If a candidate fulfils the minimum entry requirements, his or her application form will be passed to the Biomedical Science Admissions Tutor.

Offers are made to applicants on the basis of information in the UCAS form and performance in BMAT.

Mature students or those offering unusual combinations of subjects may be interviewed by the admissions tutor and one other member of staff. In all other circumstances, applicants are not
invited to attend an interview.

Candidates who are unsuccessful cannot be reconsidered for entry within the same cycle but may reapply the following year (if they obtain the relevant qualifications at the first attempt) without prejudice to the new application.

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

- Course reviews based on student feedback evaluation questionnaires, surveys and course coordinator reports
- Annual Monitoring of Undergraduate Programmes: a Report prepared by the Director of Undergraduate Studies/Director of Teaching for the College’s Science Studies Committee (inc. progression and degree statistics, response to External Examiner Reports, student feedback, course changes, and future issues).
- College Student On-Line Evaluation (SOLE) and in-house course questionnaires organised by module convenors, which are reviewed by the joint Heads of Programme and, as appropriate, Head of Division and Head of Department.
- Staff-Student Liaison Group meetings
- Student/staff feedback to and discussions at the Education Committees, which reports to the Medical Studies Committee
- Annual staff appraisals by section heads, reviewed by Head of Department, incorporating the recommendations of Follett where appropriate
- Annual ‘Town Hall’ event to discuss the NSS results from the previous year, graduation cohort
- Clinical Governance: monitoring of clinical teaching and associated resource allocation
- External examiner reports and the responses to critical comments from Examination Sub-Board Chairs which are reported to the Examinations Board and Medical Studies Committee
- Periodic review of departmental teaching by Quality Assurance and Review Committee which often includes external reviewers

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 Programme has overall responsibility for academic standards and the quality of the educational experience delivered within the department or division.

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

- Staff Student Liaison Group (meets each term; chaired by the ICSMSU President and attended by key teaching and course staff with at least two BMS student representatives for each course year and BSc Pathway representatives).
- Education Committee - BScs (meets three times p.a.; with student representation and covers all BMS years as well as the MBBS Year 4).
- Board of Examiners (meets twice in June/July to consider final degrees and first/second year results, respectively; a sub-board considers resit exam results in September).
- College, Science and Medical Studies Committees (with student representation).
- College, Quality and Academic Review Committees (with student representation).
- College, Quality Assurance Advisory Committee (with student representation).
c) Mechanisms for providing prompt feedback to students on their performance in coursework and examinations and processes for monitoring that these named processes are effective:

- Coursework: feedback is ‘normally’ provided 15 days (43 days for large items/classes) following submission with a grade and commentary on performance, strengths, weaknesses, suggestions for improvement via Blackboard Learn. Students are kept informed if the above period is longer than stated.
- Most course components contain in-course assessment (ICA), both formative and summative for students to judge their level of knowledge and understanding.
- Generic feedback is available via Blackboard Learn for all January exams in the form of a commentary on the general level of performance of the cohort for each question, the most common misconceptions, and the key points that should have been included.
- Year 1 students attaining a 2.2, 3rd or Fail grade from their January exams will be required to see the Head of Programme so that areas for improvement can be identified within term 2. Students attaining a 2.1 or 1st grade will be given the opportunity to have a non-compulsory feedback session with the Head of Programme within term 3.
- Additional, individual feedback can be requested via the Curriculum Assistant (BSc Programmes) with the Head of Programme or their personal tutor.
- Return of coursework (timing not content) is monitored by the Curriculum Assistant (BSc Programmes) and reported to the Head of Programme as necessary.

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 receives comments from students which are discussed and minuted. Student opinion is relayed to the relevant staff members and their response reported back via the next BSc, Education Committee and Staff Student Liaison Group.
- Faculty of Medicine BSc, Education Committee (with student representation).
- Feedback sessions (e.g. ‘Town Hall’ event) and questionnaires (twice termly) for each component through SOLE.
- Faculty Education Office (FEO), Personal Tutors, Head of Programme, Year Leads, Course Leaders and Senior Tutors.
- Vivas with External Examiners (final year only).

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

The BSc Welfare tutoring system is overseen by the Senior Welfare Tutor for BSc degrees in the Faculty of Medicine, the Head of Undergraduate Medicine, and the established committee structure for the BSc, beginning with the Staff-Student Liaison Committee, Student Welfare Group and the Biomedical Science, Education Committee.

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;
- Active research programme in the biomedical sciences:
• Staff appraisal scheme and institutional staff development courses;
• New Lecturers are encouraged to take the postgraduate certificate in university learning and teaching (PG Cert), provided by the Educational Development Unit
• 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

a) Assessment Rules and Degree Classification:

The BSc is a classified degree and students may receive a first, upper second, lower second or third class honours, in accordance with the regulations for other Imperial College courses.

From October 2008 entry undergraduate students must satisfactorily complete all elements of the course and all assessments before they can progress to the following year. The pass mark is 40%. For course modules that include a written examination coursework typically contributes 15% - 30% of the total marks available. A student who is unable to complete their final year exams because of illness, or the death of a near relative, may be considered for the award of a degree under the aegrotat provisions.

Classification of degrees will be according to the following range of marks:

<table>
<thead>
<tr>
<th>Class</th>
<th>Marks</th>
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<tbody>
<tr>
<td>First class</td>
<td>70 - 100%</td>
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<tr>
<td>Second class (upper division)</td>
<td>60 - 69%</td>
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<tr>
<td>Second class (lower division)</td>
<td>50 - 59%</td>
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<tr>
<td>Third class</td>
<td>40 - 49%</td>
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<tr>
<td>Fail</td>
<td>0 - 39%</td>
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</tbody>
</table>

A BSc candidate’s final degree mark is the weighted mean of the mean % total marks scored in the first, second and final years, weighted as indicated above. Final marks are rounded mathematically to the nearest integer.
b) Marking Schemes for undergraduate and postgraduate taught programmes:

The following criteria are the basis on which both exam answers and course work essays are assessed. Feedback should include comments on the structure, referencing and diagrams, as well as the content and the student’s understanding of the topic. Due allowance is made for which year is being marked and for the time available in an exam. **NB:** Problem type answers should be marked on a semi-absolute scale.

<table>
<thead>
<tr>
<th>Mark (%)</th>
<th>Criteria</th>
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<tbody>
<tr>
<td>100</td>
<td>Exceptional (1*): Answer is an exceptionally well presented exposition of the subject, showing (1) command of the relevant concepts and facts, (2) a high critical or analytical ability***, (3) originality and (4) evidence of substantial outside reading (where applicable). Comments from markers should show how this exceeds the expected level of performance of a student at this stage of their degree. &gt;80.5% = *1st</td>
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<td>95</td>
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<td>80</td>
<td>Excellent (1*): Answer is (1) a very well presented exposition of the subject, (2) shows command of the relevant concepts and facts and (3) most of the above features, but falling short in one or two of them. &gt;69.5% = L-1st (Lower) &gt;73.5% = M-1st (Middle) &gt;77.5% = U-1st (Upper)</td>
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<td>68</td>
<td>Very Good (2.1): Answer shows (1) a clear grasp of the relevant concepts and facts, (2) gives an accurate account of the relevant taught material (as exemplified in the model answer), and (3) shows evidence of some outside reading or critical or analytical ability**. &gt;59.5% = L-2.1 (Lower) &gt;63.5% = M-2.1 (Middle) &gt;67.5% = U-2.1 (Upper)</td>
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<td>58</td>
<td>Good (2.2): Answer shows (1) a grasp of the basic concepts and facts, (2) gives a mainly accurate account of at least half of the relevant taught material, but (3) does not go beyond that, or goes beyond that but is then marred by significant errors. &gt;49.5% = L-2.2 (Lower) &gt;53.5% = M-2.2 (Middle) &gt;57.5% = U-2.2 (Upper)</td>
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<tr>
<td>48</td>
<td>Adequate (3*): Answer shows (1) only a moderate grasp of the subject, and (2) is marred by major errors or brevity, but (3) by presenting at least a third of the material expected of a Very Good answer, shows sufficient relevant knowledge to reach degree level. &gt;39.5% = L-3rd (Lower) &gt;43.5% = M-3rd (Middle) &gt;47.5% = U-3rd (Upper)</td>
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<tr>
<td>45</td>
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<tr>
<td>42</td>
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<tr>
<td>Below 40</td>
<td>Fail</td>
</tr>
<tr>
<td>38</td>
<td>Answer shows a weak grasp of the subject that includes about one third of the material expected for a Very Good answer. Major errors of understanding may be evident, or the answer is too brief to show better than a Pass level of understanding.</td>
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<tr>
<td>35</td>
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<tr>
<td>30</td>
<td>Answer shows (1) a confused understanding of the question, and (2) insufficient relevant knowledge to reach degree level by presenting less than a third of the material expected of a Very Good answer. Answer is too inaccurate, too irrelevant, or too brief to indicate more than a vague understanding of the question, and presents less than a quarter of the material expected of a Very Good answer.</td>
</tr>
<tr>
<td>25</td>
<td>Answer presents only one, two or three sentences or facts that are correct and relevant to the question.</td>
</tr>
<tr>
<td>20</td>
<td>Answer contains nothing correct that is relevant to question.</td>
</tr>
<tr>
<td>15</td>
<td>&gt;0% = L-FAIL (Lower) &gt;23.5% = M-FAIL (Middle) &gt;37.5% U-FAIL (Upper)</td>
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<tr>
<td>10</td>
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<tr>
<td>5</td>
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<tr>
<td>0</td>
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</tbody>
</table>

**Analytical = assessing a hypothesis or statement by breaking it down into its elements and examining their inter-relationships and contribution to the whole; cf. critical = judging a hypothesis or conclusion by examining the validity of the evidence adduced for it.
c) Processes for dealing with mitigating circumstances:

Candidates with mitigating circumstances are considered individually by a mitigating circumstances panel which meets prior to the main exam board to which it makes recommendations. Candidates up to 5% below the normal class borders may be called for viva if it is thought the circumstances warrant it. If the Board of Examiners determines that a higher classification should be awarded, extra marks are applied to bring the final marks into the higher range.

d) Processes for determining degree classification for borderline candidates:

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 (from other UK universities) is to ensure that the degrees awarded 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 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. Imperial provides feedback to external examiners in response to recommendations made within their reports.

23. Indicators of Quality and Standards

- Examination performance throughout the course
- Favourable reports by External Examiners
- High proportion of students achieving a First or Upper Second Class Honours degree
- The outcomes of independent review by the QAA as part of Imperial College audit.

24. Key sources of information about the programme can be found in:

http://www1.imperial.ac.uk/medicine/teaching/undergraduate/bscbiomedicalscience/