****

**Programme Specification for the BSc in Biomedical 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 Blackboard. 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**

**5. Programme Title** (e.g. Biochemistry with Management): **Biomedical Science**

**6. Name of Department / Division: Undergraduate Medicine**

**7. Name of Faculty: Faculty of Medicine**

**8. UCAS Code** (or other coding system if relevant): **B900**

**9. Relevant QAA Subject Benchmarking Group(s) and/or other external/internal reference points**

**Biosciences**

**10. Level(s) of programme within the Framework for Higher Education Qualifications (FHEQ): Level 6**

|  |  |
| --- | --- |
| 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:** September 2011

**14. Educational aims/objectives of the programme**

The aims of the programme are to:

* Attract motivated, academically able students, from the UK/EU and overseas, and educate them in a way that encourages originality of thought and breadth of vision
* Provide the student with a systematic understanding of the fundamentals of biomedical science, including a coherent and detailed knowledge of human biology
* Provide course content that encourages students to think widely and in depth about the current understanding of biomedical science
* Provide students will opportunities to acquire rigorous, up-to-date, investigative and analytical skills relevant to the discipline,
* Provide students with opportunities to acquire competence in the use of computers and information technology
* Assist students to attain a level of conceptual understanding that enables them to formulate and develop hypotheses and solve problems using relevant, modern techniques though provision of extensive laboratory experience and the opportunity to undertake a research project
* Include options within the course that allow students to acquire knowledge and skills in self-selected specialist areas
* Provide students with the skills to perform literature searches and appraise research papers and reviews
* Give students an appreciation of the uncertainty, ambiguity and limits of knowledge in biomedical science
* Develop students’ skills in communication to both specialist and non-specialist audiences through written reports, posters, oral presentations and group work
* Develop students’ skills for in-depth learning, information gathering and analysis
* Provide a supportive, intellectually stimulating learning environment, underpinned by world class research
* Help students attain the intellectual rigour, creativity and flexibility of thought required to pursue further study and professional careers either in the life and medical sciences, or more broadly in industry and the public sector

1. **Programme Learning Outcomes**
2. **Knowledge and Understanding**

|  |  |
| --- | --- |
| **Knowledge and Understanding** **of**:  In Year 1  1) human anatomy 2) the fundamentals of molecular and cellular biology, including: the chemistry & biochemistry of biomolecules, the biology of cells and tissues. metabolism (including enzymes & energetics), nucleic acids, genes and genetics, immunology and infection  3) basic laboratory practical techniques  4) human systems physiology 5) the relevant scientific literature  6) the techniques of analysis and evaluation of quantitative and qualitative information and of problem solving;  7) the ethical implications of applying scientific knowledge  In Year 2 1) Psychology and behaviour, pharmacology,  2) Pathology and global health implications of infection  3) Applied molecular biology and immunology,  4) Cancer biology  4) Advanced specialist options integrating biomedicine with another discipline (currently materials science or humanities).  5) Specialist options extending earlier parts of the course (experimental pharmacology and “omics”) 6) experimental design and statistics as applied to biomedical science;  7) How to research and present a substantial piece of written work on a selected topic of interest in biomedicine.  In Year 3  1) In depth knowledge and understanding in a specialist biomedical subject selected by the student  2) modern research techniques including the rationale for use of specific techniques and experimental approaches, their theoretical underpinnings and their limitations in use  3) The scientific concepts underpinning a range of scientific instruments 4) Safe working practises and relevant legal and regulatory frameworks in which biomedical research is practised in the UK . |  |

**Teaching/learning methods and strategies**

In Years 1 and 2, knowledge and understanding is delivered through 6 core courses, which are subdivided into two or more modules. Within each module, a variety of learning methods are used including lectures to deliver core knowledge which is reinforced via practical application, tutorials, coursework, computer-based work, student presentations, directed and independent study.

In Year 2, in addition to core teaching, There are no optional elements within Year 1, but in year 2 options are a key feature of 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 when they will select a specialist subject for advanced level study from the existing menu of options.

1. **Skills and other Attributes**

|  |  |
| --- | --- |
| **Intellectual Skills**  Will include the ability to:  1) analyse and solve problems relevant to Biomedical Science  2) integrate and evaluate information;  3) formulate and test hypotheses using appropriate experimental design and statistical analysis of data;  4) plan, conduct and write-up a piece of original research |  |

5) appraise critically their own data and that of others

6) propose appropriate research strategies, which would further knowledge and understanding within

their area of expertise

**Teaching/learning methods and strategies**

During Year 1 of the course, students will receive a 40 session course of transferable skills teaching which will include specific teaching on items 1 -6. This teaching will be reinforced throughout all parts of the course, as students are given opportunities to practise the intellectual skills in the form of coursework and other tasks including essay writing, study design tasks, data analysis and interpretation exercises and items to critically appraise.

|  |  |
| --- | --- |
| **Practical Skills**  Will include the ability to:  1) plan and execute safely a series of experiments;  2) use laboratory and information–based technology to generate data and hypotheses;  3) analyse experimental results and assess their statistical and scientific significance  4) prepare technical reports;  5) give technical presentations;  6) use the scientific literature effectively;  7) use computational tools and packages. |  |

8) work safely within a research laboratory

9) use a variety of scientific instruments correctly

10) use computer-based information retrieval systems efficiently and effectively

11) use computers for data analysis, graphical presentation, information retrieval and communication;

**Teaching/learning methods and strategies**

1,2, 3,8,9 and 11 will be addressed by the setting of practical experiments. In Year 1 students will undertake a compulsory Laboratory Techniques course and will attend weekly practical sessions, where they will have the opportunity to develop and practise laboratory skills. Practical activities continue in Year 2 and in Year 3 all students will have the option to further develop their research skills through the medium of the research project. 4 -11 will also be addressed by the requirement to write up and submit practical work, give oral presentations, and produce a 4000 word dissertation. In Year 3, all students have to submit further substantial written work which will give them further opportunities to refine these skills.

|  |  |
| --- | --- |
| **Transferable Skills**  Will include the ability to:  1) communicate effectively through oral presentations, computer processing and presentations, and written reports;  2) apply statistical methods correctly  3) work effectively both independently and as part of a team;  4) integrate and evaluate information from a variety of sources;  5) use Information and Communications Technology;  6) manage resources and time;  7) learn independently with open-mindedness and critical enquiry;  8) learn effectively for the purpose of continuing professional  development.  9) integrate ethical considerations into all aspects of their scientific practice  **Teaching/learning methods and strategies**  During Year 1 of the course, students will receive a 40 workshop course of transferable skills teaching which will include specific teaching on all of the above. This will consist of a range of practical exercises, debates and conferences where students will have the opportunity to practise all the above skills with materials which complement their concurrent biomedicine studies. |  |

**16. The following reference points were used in creating this programme specification**

* QAA guidelines for preparing Programme Specifications ([www.qaa.ac.uk](http://www.qaa.ac.uk)).
* Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008)

**17. Programme structure and features, curriculum units (modules), ECTS assignment and award requirements**

The programme is offered as a three year, full time course, running for a total of xx weeks spread over three academic years, each worth 60 ECTS. The programme consists of lectures, practicals and small group teaching, with regular coursework assignments to assess the ongoing acquisition of knowledge, understanding and skills. The programme is divided into a series of courses which, in the first year, provide core skills and knowledge on which the candidate will build and extend in the second year, where some Year 1 topics are revisited in greater depth and more complex courses, such as cancer biology, are introduced for the first time. A number of interdisciplinary and advanced options are offered in the second term of Year 2 and students have their first opportunity to produce an extended piece of scientific writing, in the form of the tutored dissertation. In Year 3 students select an option for the existing Faculty of Medicine menu of honours courses which have been separately developed and quality assured.

**Year One (60 ECTS)**

Includes essential molecular and cellular bioscience, and covers all aspects of normal human body biology and physiology delivered as three core courses, one each term. A concurrent course of transferable skills runs throughout the academic year.

**Term one (24 ECTS).**

**:** *Cell and Molecular Biomedical Science.* This course is made up of the following modules: 1. Chemistry & biochemistry of biomolecules. 2. The biology of cells and tissues. 3. Metabolism (including enzymes & energetics). 4. Nucleic acids, genes and genetics. 5. Immunology and infection. 6. Introduction to Laboratory techniques. The transferable skills course runs throughout the term, introducing appropriate skills as required by the science elements of the programme (eg scientific writing will be delivered prior to submission of the first coursework essay).

Regular coursework assignments check the acquisition of understanding and core intellectual and transferable skills. A summative examination [Cell and Molecular Science Part a] will be held in December, to ensure that students are engaging fully in the programme from the outset.

**Term Two (20 ECTS)**

*The Biology of Integrated Systems*: This course is made up of four modules; the nervous system, the musculo-skeletal system, endocrinology and haematology.

*The Biology of specific systems*: The first module of the final core course of Year 1, Cardiopulmonary systems, is delivered at the end of the second term.

The transferable skills course continues throughout term 2 in parallel with the science teaching. Regular coursework assignments continue, but there are no summative examinations in term 2.

**Term Three (16 ECTS)**

*The Biology of Specific Systems*: The course continues with 2 further modules on Reproduction, Development & Aging and Digestive & Metabolic systems

The transferable skills course continues as do summative coursework assignments.

Following a period of revision, a summative examination is held for each course.

Summative assessment

The coursework assignments collectively total 30% of the marks available for each course, with a closed book examination providing the remaining 70% of the marks for each course. Summative examinations will follow a standard structure of data handling and interpretation tasks, essays and short answer questions. Students must pass coursework and examination components separately.

Year 1 contributes 5% to the final degree classification.

**Year Two (60 ECTS)**

Year 2 is made up of a further three courses and introduces more complex material, extending and deepening the teaching given in year 1. Students have their first elements of choice in term 2 when they select a tutored dissertation title, for which they are assigned approximately one session per week for their private study. This gives them the chance to develop their independent study skills and to produce a substantial piece of scientific writing (4000 word). They also choose two specialist option modules, one interdisciplinary and one which gives added depth to a specific aspect of their prior study. Currently there are two choices for each option, but it is intended that others will be added as the programme develops.

**Term One (22 ECTS)**

Term 1 is made up of a single course, Pharmacology, Pathology, Psychology and Population (PPPP). Apart from a small number of sessions on career management, transferable skills practice and development is embedded entirely within the science modules. A range of coursework assignments ensures that this skills continue to be refined.

**Term Two (22 ECTS)**

Term 2: This term begins with the summative closed book examination of the PPPP course.

Students select their Dissertation title at the beginning of this term and will meet with their tutor on at least four occasions during the term. In addition, the Advanced cell and molecular science course is delivered, consisting of two modules, Applied molecular biology and Cancer biology. Students spend four weeks studying their Specialist options. Current options are Biomedical Humanities or Nanotechnology and biomedical sciences to give breadth to their study, followed by Experimental pharmacology or The application of “Omics” to give depth. All modules are assessed with coursework assignments.

**Term Three (16 ECTS)**

Term 3: Students submit their tutored dissertation during term 3 and the year closes with one final course, Immunology. As well as introducing complex new material, Immunology gives students the opportunity to integrate learning from many other parts of the programme including cell and molecular biology, pharmacology and the pathology of infection.

The year ends with the summative closed book examination of the advanced cell and molecular science and immunology courses. As in Year 1, all examinations will include a variety of tasks including essays, short answer questions and data handling exercises. Coursework will account for 30% of the marks, and examinations for 70% of the marks for each course. Students must pass coursework and examination components separately.

Further professional transferable skills are woven into the year 2 programme.

Year 2 contributes 20% to the final degree classification

**Year Three** **(60 ECTS)**

Students select a course from the menu of choices available within the Faculty of Medicine. Current options are: Cardiovascular Science, Endocrinology, Gasterontology and Hepatology, Global Health, Haematology, Immunobiology, Neuroscience and Cognitive Function, Pharmacology, Reproductive science, Respiratory Science, Surgery and Anaesthesia. All these courses have their own programme specifications and each has been independently developed and quality assured.

Each course consists of a 2 week introductory module, followed by 3 taught modules, each of 5 weeks (36 ECTS). Two pieces of summative coursework are submitted for each of the 5 week modules. Coursework accounts for 30% of the mark for each module. Summative examination of the taught modules (705 marks) takes place in February. Students then select either a 10-week laboratory research project (24 ECTS), or b) a Specialist module in Medical Humanities, History of medicine or Death, Autopsy and the Law (24 ECTS). The project or Specialist options are assessed by a combination of performance, oral presentation and either dissertation (Project) or further coursework assignments (Specialist options).

The three taught modules contribute 60% of the marks for the course and the project or specialist options the remaining 40%.

Year 3 contributes 75% to the final degree classifications.

**18. Support provided to students to assist learning (including collaborative students, where appropriate).**

* a 1-week induction programme (Year 1) for orientation, introduction to library and information technology
* Student-run ‘buddy’ scheme for freshers; support of the medical student’s Union
* Year summaries of the critical information are printed and given to students
* Comprehensive Year Guides with all details of courses, assessments, support staff, campus maps, methods and criteria for assessment are published electronically
* Additional information provided on the Undergraduate Teaching Intranet
* All students are allocated a personal/academic tutor whose role is to assist them with personal problems and to advise on pastoral and academic issues
* The Faculty Education Office (Medicine) (FEO (M)) provides a first point of contact for all matters concerning students
* Extensive library (7 day, 24 h opening in term time) on the South Kensington campus
* Dedicated computing, printing, copying/scanning facilities, providing email, on-line journals, journal databases, electronic texts etc.
* A staff-student committee that meets once per term.
* Students have email, telephone and open personal access to tutorial staff including the Senior Tutor (Head of Pastoral Care) the Course Convenor, the Head of Undergraduate Medicine and FEO (M) staff
* Access to student counsellors and a range of health services on the South Kensington site
* Access to Teaching and Learning Support Services, which provide assistance and guidance, e.g. on careers

In addition, there are student-union nominated 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 (Medicine) (FEO (M)) counters at the 4 main teaching campuses where students can go for information and advice, in person and by email.

**19. Criteria for admission:**

The admissions process is carried out by a Deputy Admissions Tutor, supported by the Admissions team in the Faculty Education Office (Medicine) and the Medicine Admissions Team in Registry, and is overseen by the Faculty of Medicine Senior Admissions Tutor.

Entrance requirements are as follows: a minimum of three A levels, including chemistry, biology and a third science or mathematics subject, and an AS level in a separate subject. The normal offer is grades AAA in three A-levels and a grade B in a fourth AS subject. Candidates must also offer grade B in GCSE English language. Scottish Advanced Higher Grades are considered as equivalent to A-Levels. Scottish Higher Grades alone are not sufficient.

Non-A-Level qualifications considered include the International Baccalaureate (38 points overall, including Biology HL6 and Chemistry HL6 and English SL5), the European Baccalaureate (85% overall, with 9 in Biology and 9 in Chemistry), and the French Baccalaureate (16/20 overall with 16/20 in Biology and Chemistry). German Abitur, Irish Leaving Certificate, and Advanced Placements (USA) are also considered. Other qualifications are considered on an individual basis. Non-UK applicants must be able to demonstrate a competence in the English language through IELTS or equivalent

All applicants are required to take the BioMedical Admissions Test (BMAT, held annually in November) to be considered for entry.

**20. Processes used to select students:**

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

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

* Course reviews based on student feedback evaluation questionnaires and course co-ordinator reports
* College *Student On-Line Lecturer Evaluation* (SOLE) and in-house course questionnaires organised by module convenors, which are reviewed by the Course Convenor and, as appropriate, Head of BScs and Head of Department.
* Staff Student Liaison Group meetings
* Student/staff feedback to and discussions at the Education Sub-Board Committees and Education Committee, chaired by Director of Education, 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
* 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

1. **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 of Medicine Studies Committee reviews and considers 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.

1. **Committees with responsibility for monitoring and evaluating quality and standards:**

* Staff - Student Committee (meets at least once per term; chaired by the president of the medical students’ Union and attended by key teaching staff and at least two student representatives from each year).
* Biomedical science Management Group (meets at least three times p.a.; with student representation).
* Education Committee 4 (meets four times per year to consider all aspects of UG medicine year 4 teaching which encompass final year modules taken by BMS students.
* Board of Examiners (including external examiners) meets in mid-July to consider final degrees and in late July to consider first/second year results. Also meets in mid-September to consider resit results from year 1 & year 2 students. An internal sub-board meets in February to consider results from the December (year 1) and January (year 2) examinations.
* College, Medical Studies Committee (with student representation).
* College Quality Assurance Advisory Committee (with student representation).
* Imperial College, Senate

1. **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:**
   1. Coursework is returned to students within 2 weeks (4 weeks for large items/classes) with a mark and commentary on performance, strengths, weaknesses, suggestions for improvement. For all courses a proforma is available to assist with this.
   2. Most modules contain informal non-assessed tests for students to judge their level of knowledge and understanding.
   3. Generic feedback is available via the VLE for all exams except finals 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.
   4. For most courses individual feedback is available on request to individual students via the course convenor or the personal tutor
   5. Return of coursework (timing not content) is monitored by the FEO(M) and reminders sent, copied to the Course Convenor as necessary
2. **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 Committee (Student Chair and several representatives from each student year). Comments from students are discussed and minuted. Student opinion is transmitted to the staff concerned and their response reported to the next meeting by the Senior Tutor
* Faculty of Medicine Education Sub-committee Year 4 – BSc - student representative.
* Feedback sessions and questionnaires for each module and SOLE
* FEO (M), Personal Tutors, Senior Tutor (FoM), Course Convenor and Module Leaders.
* *Vivas* with External Examiners.

**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 and the Biomedical Science Management Group.

1. **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, the student experience 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.

1. **Staff development priorities for this programme include:**

* College and Faculty of Medicine Staff Development Courses, run by the Educational Development Unit (EDU) of Imperial College London;
* Active research programme in the biomedical sciences:
* Staff appraisal scheme and institutional staff development courses;
* New Lecturers in the Faculty of Medicine undergo an induction in teaching, including three compulsory workshops. They are also encouraged to take additional courses in Education run by the EDU (see above);
* Updating professional and IT/computing developments.

**22. Regulation of Assessment**

1. **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.

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 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:

First class 70 - 100%

Second class (upper division) 60 - 69%

Second class (lower division) 50 - 59%

Third class 40 - 49%

Fail 0 - 39%

A BSc candidate’s final degree mark is the weighted mean of the mean % total marks scored in each year, weighted 5% for Year 1, 20% for Year 2 and 75% for Year 3.

All marks are rounded mathematically, so 69.5% is rounded to 70% (1st class), and 69.4% would be 69% (2.1).

1. Marking Schemes for undergraduate and postgraduate taught programmes:

A standardised marking scheme (sample given below) is used to assess all written work in years 1 to 3. Account is taken of the relevant year of the degree programme, so a final year standard answer is not expected from a first year student. In addition, account is taken of the teaching of the subject, the instructions provided for the work (*e.g.* level of presentation for dissertations) and the type of question set. For examination answers, allowance is made for what is reasonably achievable under examination conditions. Similar schemes are used to assess oral presentations and laboratory work

|  |  |  |
| --- | --- | --- |
| Class | % | Criteria |
| **1st** | 100 | **Exceptional** answer that is a very well-presented exposition of the subject showing (i) complete command of the relevant concepts and facts, (ii) a high critical or analytical ability, (iii) originality, and (iv) evidence of substantial outside reading (where applicable). Assessments in this mark range should take particular account of what can be expected in the time available under examination conditions, or within the word limit for an essay, at this stage of the candidate’s career. |
| 95 |
| 90 |
| 85 |
| 80 | **Excellent** answer that is a very well presented exposition of the subject, showing the above features, but not fully achieving one of them. |
| 76 |
| 72 |
| **2A** | 68 | **Very good** answer that (i) shows a clear grasp of the relevant concepts and facts, (ii) gives a mainly accurate account of the relevant taught material, and (iii) shows evidence of some outside reading, or of critical or analytical ability. |
| 65 |
| 62 |
| **2B** | 58 | **Good** answer that (i) shows a grasp of the basic concepts and facts, (ii) gives a mainly accurate account of at least half of the relevant taught material, but (iii) does not go beyond that, or goes beyond that but is then marred by significant errors. |
| 55 |
| 52 |
| **3rd** | 48 | **Adequate** answer that (i) shows a relatively weak grasp of the subject, and (ii) is marred by major errors or brevity, but (iii) by presenting at least a third of the material expected, shows sufficient relevant knowledge to reach degree level. |
| 45 |
| 42 |
| **Fail** | 38 | **Fail**: answer (i) shows a confused understanding of the question, and (ii) presents less than a third of a material expected. Shows insufficient relevant knowledge to reach degree level. |
| 35 | Answer (i) is too inaccurate, too irrelevant, or too brief to indicate more than a vague understanding of the question, and (ii) presents, at most, only about a quarter of the material expected. |
| 30 |
| 25 |
| 20 |
| 15 | Answer presents only three concepts or facts that are correct and relevant. |
| 10 | Answer presents only two concepts or facts that are correct and relevant. |
| 5 | Answer presents at most one concept or fact that is correct and relevant. |
| 0 | Answer contains nothing correct that is relevant to question. |

*Analytical* = assessing a hypothesis or statement by breaking it down into its elements and examining their inter-relationships and contribution to the whole; *Critical* = judging a hypothesis or conclusion by examining the validity of the evidence adduced for it.

1. **Processes for dealing with mitigating circumstances:**

Candidates with mitigating circumstances are considered individually by a mitigating circumstances committee 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.

1. **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.

1. **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). 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. Two external examiners are nominated by the Biomedical Science board of examiners and are approved by the Science and Medical Studies Committees. Final year courses will also have been approved by specialist examiners appointed by both the Department of Life Sciences and the Faculty of Medicine (BSc degrees).

**23. Indicators of Quality and Standards**

* Examination performance throughout the course
* Favourable reports by Visiting 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:**

The prospectus

Year and individual course handbooks <http://www3.imperial.ac.uk/ugprospectus/facultiesanddepartments/medicine/undergraduatecourses/biomedical>science