MHLS Undergraduate Programme Changes

Amendments to Undergraduate Programmes from 2023-24

If you have been made an offer to study at Queen's, you will have received a copy of the University's terms and conditions which states that you will be made aware of any significant amendments made to the programmes for entry in 2023-24. The University is always looking at ways to make programmes better, and the changes outlined below have been designed to provide you with an enhanced student experience.

Biological Sciences (biolsci@qub.ac.uk)

BSc Biochemistry BSc Biochemistry with Professional Studies MSci Biochemistry MSci Biochemistry with Professional Studies	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: Module BIO1301 World of Microorganisms, which was a Stage 1 full year module worth 40 CAT points, has been split into 2 individual modules: each worth 20 CAT points. The two individual modules are called Fundamentals of Microbiology which will be delivered in the Semester 1 and World of Microorganisms which will be delivered in the Semester 2.

	Module BIO1304 Molecular Basis of Life which was a Stage 1 full year module worth 40 CAT points, has been split into 2 individual modules: each worth 20 CAT points. The two individual modules are called Molecular Basis of Life which will be delivered in the Semester 1 and Genetics and the Molecular Toolbox which will be delivered in the Semester 2. Module BIO2102 - Experimental Biochemistry is a 20 CAT, Stage 2 module that is compulsory for Biochemistry programmes. The change is to reduce the number of assessments and therefore to amend the assessment weightings. The current assessment is: 4 x lab reports worth 15% each and 2 x class tests worth 20% each. Class tests currently cover all lecture material. This will change to 3 x lab reports worth 20% each, 1 x lab report as formative assessment at the beginning of semester and 1x class test worth 40% of the module. The material on the single class test will focus 75% on the lecture material that was NOT covered by the lab reports, and 25% on the main take home messages from the remaining lectures. Module BIO2305 - Molecular Genetics and Bioinformatics, which was a Stage 2 full year module worth 40 CAT points, has been split into 2 individual modules: each worth 20 CAT points. The two individual modules are called Molecular Genetics and Bioinformatics 1 which will be delivered in the Semester 1 and Molecular Genetics and Bioinformatics 2 which will be delivered in the Semester 2.

	Module BIO3304 - Biomolecules in health and disease is a 40 CAT, full year, stage 3 module that is compulsory for Biochemistry programmes. The change is to better align the outcomes of the module with a more integrated student focussed approach with maps to subject benchmark statements. Some Descriptions of current Learning Outcomes are changing: • Demonstrate an understanding of the chemistry, structure, and function of biological molecules. • Explain the biochemical processes that underlie the relationship between genotype and phenotype. • Demonstrate an understanding of the structure and function of both prokaryotic and eukaryotic cells. This will change to: LO1: Evaluate and discuss current principles in biochemistry. LO2: Demonstrate an in-depth knowledge of the chemistry, structure and function of biological molecules, the major classes of signalling molecules, their receptors and intracellular signalling pathways. LO3: Demonstrate an understanding of the structure and function of both prokaryotic and eukaryotic cells.

	LO4: Explain the biochemical processes that underlie the relationship between genotype and phenotype. LO5: Explain the complex nature of the pathophysiology of selected biochemical disorders. LO6: Analyse ways of manipulating biochemical systems to prevent or treat disease. LO7: Apply problem solving skills. LO8: Employ communication skills. LO9: Demonstrate innovation in science through the application of knowledge. As a result, the assessments and weightings are also required to change. The current assessment is: Class test: worth 10%, Class test 2: worth 30%, Final written examination: worth 60% This will change to: Class test: worth 10%, Essay: worth 30%, Final written examination: worth 60%.
BSc Microbiology BSc Microbiology with Professional Studies MSci Microbiology	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme:

MSci Microbiology with Professional Studies	Module BIO1301 - World of Microorganisms is a full year, Stage 1, 40 CAT module that is compulsory for Microbiology programmes. The change is to split this module into two 20 CAT modules; both will be compulsory on Microbiology programmes: Fundamentals of Microbiology delivered in semester 1 and World of Microorganisms delivered in semester 2. BIO1304 - Molecular Basis of Life is a full year, Stage 1, 40 CAT module that is compulsory for Microbiology programmes. The change is to split this module into two 20 CAT modules; both will be compulsory on Microbiology programmes: BIO1103 – Molecular Basis of Life – taking place during the autumn semester and BIO1304 – Genetics and the Molecular Toolbox - taking place during the spring semester. Module BIO2305 - Molecular Genetics and Bioinformatics is a full year, Stage 2, 40 CAT module that is compulsory for Microbiology programmes. The change is to split this module into two 20 CAT modules; both will be compulsory on Microbiology programmes: Molecular Genetics and Bioinformatics 1 – taking place during the autumn semester and BIO2- Molecular Genetics and Bioinformatics 2 – taking place during the spring Semester. Module BIO1305 – Biodiversity is a full year, Stage 1, 40 CAT module that is optional for Microbiology programmes. The change is to split this module into two 20 CAT

	modules, both will be optional on Microbiology programmes: Biodiversity and Environmental Biology. Module BIO1309 Ecology and Environmental Sciences will undergo a name change to Environmental Sciences.
BSc Marine Biology BSc Marine Biology with Professional Studies MSci Marine Biology MSci Marine Biology with Professional Studies	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: A change in the continuous assessment for module BIO2108 Marine Systems delivered in Semester 1, Level 2. This module is compulsory for all Marine Biology undergraduate students and an optional module for Environmental Management Students. These changes are designed to help with group collaboration at the start of one of the central pieces of the continuous assessment by introducing a planning exercise at the start worth 10% of the module mark. The ID guide (2022 Workshop) had been introduced during lockdown to replace fieldwork experience but is no longer required with the content learned first-hand during the field trips. Consequently, this assignment will be removed from the module from 2023 onwards.

	The current Continuous Assessment profile will change **from**: A Practical Skills Portfolio: Workshop 1 Assignment (ID Guide) = 10%, Workshop II Assignment (Habitat Mapping) = 15% and Workshop III Assignment (Statistics) = 20% [45% in total], End of Course Class test: [35% Total] and Group Presentations on a Choice of Topic (submitted in the form of a public education video): [20%] **To**: Practical Skills Portfolio: Workshop I Assignment (Habitat Mapping) = 15% and Workshop III Assignment (Statistics) = 20% [35% in total], End of Course Class test: [35% Total], Group Presentations on a Choice of Topic (submitted in the form of a public education video) = 20%, plus an initial project plan to support the presentation = 10% [30% in total].
BSc Biological Sciences BSc Biological Sciences with Professional Studies MSci Biologicals Sciences MSci Biological Sciences with Professional Studies	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: Module BIO1301: World of Microorganisms 40 CAT full year module; compulsory for all Biological Sciences programmes. This will change from a 40 CAT year-long module delivered across Semester 1 (S1) and 2 (S2) to two independent modules delivered separately in Semester 1 and 2 as: Fundamentals of Microbiology (Semester 1) and World of Microorganisms (Semester 2).

	Module BIO1304: Molecular Basis of Life 40 CAT full year module; compulsory for all Biological Sciences programmes. This will change from a 40 CAT yearlong module delivered across S1 and S2, to two independent modules delivered separately in S1 and S2 as BIO1103: Molecular Basis of Life (Semester 1) and BIO1304: Genetics and the Molecular Toolbox (Semester 2). Module BIO1305: Biodiversity 40 CAT full year module; compulsory for all Biological Sciences programmes. This will change from a 40 CAT year-long module delivered across S1 and S2 to two independent modules delivered separately in S1 and S2 as: BIO1305: Biodiversity (Semester 1) and Environmental Biology (Semester 2). Module BIO2305: Molecular Genetics and Bioinformatics 40 CAT full year module; compulsory for all Biological Sciences programmes. This will change from a 40 CAT year-long module delivered across S1 and S2 to two independent modules delivered separately in S1 and S2 as Molecular Genetics and Bioinformatics 1 (Semester 1 and Molecular Genetics and Bioinformatics 2 (Semester 2) Module BIO2305: Molecular Genetics and Bioinformatics 40 CAT full year module; compulsory for all Biological Sciences programmes. This will change from a 40 CAT year-long module delivered across S1 and S2 to two independent modules delivered

	separately in S1 and S2 as Molecular Genetics and Bioinformatics 1 (Semester 1), Molecular Genetics, and Bioinformatics 2 (Semester 2). Module BIO2202: Microorganisms in Action,20 CAT module; optional for all Biological Sciences programmes. This will change through the assessment profile as: The Chromatography lab report (worth 15%); ELISA report (worth 15%); Class Test (worth 60%); Post Lab Quiz (10%), will change to a Chromatography lab report (worth 20%); presentation on AMR (worth 20%); Class Test (worth 50%); Post Lab Quiz (worth10%). Module BIO3304: Biomolecules in Health and Disease (40 CAT year-long module; optional for all Biological Sciences programmes), an update of Intended learning outcomes to map to national Subject Benchmark Statement requirements will be implemented.
BSc Zoology BSc Zoology with Professional Studies MSci Zoology MSci Zoology with Professional Studies	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: Module BIO1301 World of Microorganisms, 40 CAT full year module; compulsory for all Zoology programmes. This will undergo a change from a 40 CAT full year module delivered across semester 1 (S1) and semester 2 (S2) , to two independent modules

	delivered separately as Fundamentals of Microbiology (Semester 1) and World of Microorganisms (Semester 2). Module BIO1304 Molecular Basis of Life, 40 CAT full year module; compulsory for all Zoology programmes. This will undergo a change from a 40 CAT full year module delivered across semesters 1 & 2 to two independent modules delivered separately as BIO1103: Molecular Basis of Life (Semester 1) and BIO1304: Genetics and the Molecular Toolbox (Semester 2). Module BIO1305 Biodiversity, 40 CAT full year module; compulsory for all Zoology programmes. This will undergo a change from a 40 CAT full year module delivered across semesters1&2 to two independent modules delivered separately in S1 and S2 as BIO1305: Biodiversity (Semester 1), Environmental Biology (Semester 2). Module BIO2306 Animal Biology and Physiology, 40 CAT full year module; compulsory for all zoology programmes. This will undergo a change from a 40 CAT full year module delivered across Semester 1 and 2 to two independent modules delivered separately in S1 and S2 as Comparative Animal Physiology (Semester 1) and Vertebrate Biology (Semester 2).

BSc Environmental Management BSc Environmental Management with Professional Studies	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: Module BIO1309 Ecology and Environmental Sciences will undergo a change of title to BIO1309 Environmental Sciences. The assessment framework of this module will change from an exam [worth 50%], an essay [worth 35%] and field reports [worth 15%] to an exam [worth 50%], an essay [worth 25%] and field reports [worth 25%].

Medicine, Dentistry and Biomedical Sciences

Medicine (medicaled@qub.ac.uk)	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: Module MED2022 Foundations of Practice 2 which comprises of 4 units on an integrated system-based programme with the following 3 units:

	• Personal and Professional Development Portfolio and the Integrated system-based programme. • Gastrointestinal, Renal, Endocrine and Reproductive systems • Neurological system Personal and Professional Development Portfolio and the Integrated system-based programme with the following 3 units: • Gastrointestinal, Renal, Endocrine and Reproductive systems • Neurological system • Musculoskeletal system Part 2 and Skin Clinical Skills will change on these will change **from** – Clinical skills (including communication, examination and practical procedural skills relating to the cardiovascular, respiratory, haematological and musculoskeletal systems) are taught in clinical skill centres and through contact with real patients in primary and/or secondary care. **to** – Clinical skills (including communication, examination and practical procedural skills relating to the gastrointestinal, renal, endocrine, reproductive, neurological, dermatological and musculoskeletal systems) are taught in clinical skill centres and through contact with real patients in primary and/or secondary care. We are also updating the module learning **from**: 1. Applying biomedical scientific principles, methods and knowledge to medical practice and integrate these into patient care. Thus includes the principles and knowledge relating to the anatomy (including embryology and histology), biochemistry, immunology,

	microbiology, pathology, pharmacology and clinical pharmacology, and physiology of the GI, renal, endocrine, reproductive, neurological and musculoskeletal systems. 2. Applying, in relation to the GI, renal, endocrine, reproductive, neurological, musculoskeletal, and skin systems the principles, methods and knowledge of population health and the improvement of health and sustainable healthcare to medical practice, psychological concepts of health, illness and disease and sociological concepts of health, illness and disease 3. Perform the designated clinical skills (communication, examination, and procedures) specific to the GI, renal, endocrine, reproductive, neurological and musculoskeletal systems. 4. Reflecting on learning **To:** 1. Describe the normal structure and function of each body system. 2. Discuss the concepts underpinning normal growth and development, and embryology including fertilisation, implantation, gastrulation, neurulation and placentation. 3. Describe the functional microanatomy of the urinary, endocrine, immune, alimentary, and reproductive systems. 4. Describe the functional anatomy of the pelvis including the viscera, musculature; their relations and the blood / lymph circulation and innervation. 5. Describe the functional anatomy of the breast. 6. Describe the functional anatomy of the abdominal cavity including the viscera, musculature; their relations and the blood / lymph circulation and innervation. 7. Describe the functional anatomy of the endocrine system including the pituitary, thyroid and parathyroid glands, adrenal glands, pancreas and other endocrine organs. 8. Demonstrate the basic skills of observation, description, interpretation and reporting of previously unseen histological and anatomical specimens.

	9. Explain how urine is formed by the kidneys and how renal blood flow, glomerular filtration, and tubular reabsorption/secretion are involved in this process and how their value can be calculated. 10. Explain how the osmolarity, volume and pH of urine is controlled to maintain body fluid composition. 11. Describe how urine is expelled from the body. 12. Describe how food is moved, digested, processed and eventually evacuated from the body. 13. Describe the principles of nutrition and body weight control and detail the metabolism and control of blood concentration of carbohydrates, proteins and lipids. 14. Explain the concept of endocrine control of body function dealing specifically with hypothalamic and pituitary influence of hormone secretion and the role and context of hormone control of various body systems (e.g. insulin and glugagons, regulation of blood glucose levels, lactation and ovulation, thyroid control of metabolic rate) 15. Describe male and female reproductive physiology, incorporating the physiology of implantation, pregnancy, labour and lactation. 16. Outline the challenges faced by the newborn in adaption to extrauterine life. 17. explain how normal human structure and function and physiological processes applies, including at the extremes of age, in children and young people and during pregnancy and childbirth. 18. Illustrate how metabolic pathways are controlled by hormones and the connection between nutritional state and energy sources. 19. Describe how the physiological control of stomach acid secretion can be targeted in the treatment of peptic ulcer disease with non-pharmacological and pharmacological treatments. 20. Discuss how liver and renal disease and extremes of age can influence drug metabolism, efficacy and toxicity. 21. Identify and explain the different ways in which concurrent medications can interact with potential beneficial or negative impact on efficacy and adverse effects. 22. Describe the principles behind assessment and management of common poisonings. 23. Apply the UK guidelines for the acute and chronic treatment of type 1 and type 2 diabetes mellitus. 24. Outline the mode of action of lipid modifying drugs and their clinical uses.

	25. Recognise the challenges of safe prescribing for patients in pregnancy, at extremes of age and at the end of life. 26. Explain the clinicopathological features of common GI, renal, endocrine and reproductive disorders. 27. Explain the relevant pathological processes underlying common and important disease processes. 28. Explain the epidemiology, microbiology, pathophysiology and clinical features of common and important infections of these systems. 29. Choose relevant diagnostic investigations for common and important infections and interpret the results of investigations in the context of clinical findings. 30. Justify, through an explanation of the underlying fundamental principles and clinical reasoning, the selection of appropriate laboratory investigations for common clinical conditions, infections and diseases. 31. Describe the major genetic disorders associated with these systems, their molecular basis, clinical presentation and treatment. 32. Discuss issues relating to health economics and equity, and clinical guidelines. 33. Discuss from a global perspective the determinants of health and disease and variations in healthcare delivery and medical practice. 34. Discuss the role and impact of nutrition to the health of individual patients and societies. 35. Describe the functional microanatomy of the nervous system. 36. Describe the structure of the human brain, spinal cord and peripheral nervous system including blood supply and osteology of the skull and neck. 37. Describe the functional microanatomy of the eye and ear and how this relates to the function of these structures. 38. Describe the hierarches evident in the central nervous system processing and how these relate to neural function. 39. Relate neurotransmitter systems of the brain to neural functions and normal and aberrant behaviours. 40. Demonstrate the protective functions of the blood-brain barrier, requirements of the blood supply and related this to metabolic demand. 41. Describe the physiological processes underpinning manifestations of pain. 42. Describe the major sensory pathways in the central nervous system. 43. Describe the special senses of vision, hearing and vestibular function.

	44. Describe the major movement pathways and structures in the central nervous system. 45. Recognise where and how different functions including language interpretation and production are processed 46. Describe the vascular and neuronal connections between the hypothalamus and the pituitary. 47. Describe the location and function of the principal neurotransmitters involved in the action of drugs used in the treatment of the main mental illnesses, dementia, epilepsy and Parkinson's disease. 48. Outline the modes of action, desired effects and adverse effects of the principal drugs used in treatment of these disorders. 49. Explain the clinicopathological features of common neurological conditions. 50. Explain the relevant pathological processes underlying common and important neurological disease processes. 51. Explain the epidemiology, microbiology, pathophysiology, and clinical features of common and important infections of these systems. 52. Choose relevant diagnostic investigations for common and important infections and interpret the results of investigations in the context of clinical findings. 53. Justify, through an explanation of the underlying fundamental principles and clinical reasoning, the selection of appropriate laboratory investigations for common clinical conditions, infections, and diseases. 54. Describe the major genetic disorders associated with these systems, their molecular basis, clinical presentation, and treatment. 55. Explain the functional anatomy of the lower limb including the medically relevant osteology and joints, musculature, blood / lymph circulation and innervation. 56. Describe the key anatomical relations associated with major anatomical structures of the and lower limb. 57. Explain how working muscles and organs signal their need for perfusion to meet local metabolic demands. 58. Describe the histological features of skin, ordinary connective tissue, fat, cartilage and bone and the process of ossification. 59. Explain common musculoskeletal and dermatological clinical presentations making direct reference to anatomical structures and anatomical relations.

	60. Apply the UK guidelines for the treatment of musculoskeletal and dermatological (MSK) conditions in theoretical clinical scenarios. 61. Compare the properties of the various classes of drugs that act on the skin, muscles and joints and apply this knowledge to formulate appropriate treatment plans for common MSK conditions. 62. Explain the clinicopathological features of common MSK and skin conditions. 63. Explain the relevant pathological processes underlying common and important MSK and skin disease processes. 64. Explain the epidemiology, microbiology, pathophysiology, and clinical features of common and important infections of these systems. 65. Choose relevant diagnostic investigations for common and important infections and interpret the results of investigations in the context of clinical findings. 66. Justify, through an explanation of the underlying fundamental principles and clinical reasoning, the selection of appropriate laboratory investigations for common clinical conditions, infections, and diseases. 67. Describe the major genetic disorders associated with the MSK and skin system, their molecular basis, clinical presentation, and treatment. 68. Perform the designated clinical skills specific to each body system. Within this domain they must: a. Demonstrate professional attitudes towards patients and colleagues at all times. b. Adhere to infection control principles. c. Recognise normal clinical findings and appreciate abnormal clinical findings. d. Begin to interpret the clinical findings. e. Demonstrate good communication skills in the clinical setting. f. Discuss the importance of patient-centred care. g. Demonstrate appropriate attitudes towards patients in the clinical setting. h. Describe the roles and working relationships of the health care team. i. Relate the ethical principles and theories to the GMC guidance including duties of a doctor and to case studies. j. Behave according to the ethical and professional principles as set out in ‘Outcomes for Graduates’.

	69. Discuss sociological concepts of health, illness, and disease. Discuss the social determinants of health and health inequalities for people from diverse social and cultural backgrounds. 70. Apply theoretical frameworks of psychology to explain the varied responses of individuals, groups, and societies to disease. 71. Reflect on learning. Module MED4024 Immersion in Practice 2 comprised 6 units and will change **from**: Units 1 to 4 include clinical experience in clinical specialities (each specialty represents a module unit) which will focus on life cycle from childhood, through reproduction to adult life to old age. Students will undertake attachments in the following specialties: Child Health; Mental Health; Women's Health; Cancer, Ageing and Health. Each specialty should not be seen as discipline specific silos; rather, together the emphasis is on the patient in the community, at home, in the GP surgery and in hospital at all stages of life. Content for each specialty is co-designed and co-delivered by both primary and secondary care physicians. Each clinical rotation will commence with a one-week introduction at QUB followed by 6 weeks of workplace learning - four weeks in the secondary care environment and 2 weeks in General Practice. Inter-professional and simulated learning opportunities will also be provided. General Practice will constitute the Longitudinal Integrated Clerkship component of Year 4. Students will be attached to the same general practice in four, two-week long placements throughout the year. For each unit the 2 weeks in primary care will have a focus on learning opportunities pertinent to the relevant module unit. In addition, it offers 'overall' primary care learning time to encompass the full range of patients and care in community settings. The emphasis will be on:

	Patient-centred care, population centred care, the efficacy of general practice Case-based learning will again be used to integrate the 4 GCAT (Global and Population Health, Clinical Science and Practice, Achieving Good Medical Practice, Teamwork for Safe Care) themes, provide standardisation of learning and provide a 3rd 'spiral' of the body systems as they present throughout the life cycle. Key curriculum themes (GCAT) will be integrated as appropriate into the teaching programme. 1. Integrated Clinical Science and Quality Healthcare unit which will be delivered over 6 weeks – 2 at the beginning and 4 at the end of the year. This unit focuses on an understanding of quality improvement methodology, healthcare systems, and consolidation of the clinical and biomedical science teaching from year 1-4. 2. Personal and Professional Development Portfolio **To** comprise of 5 elements: Elements 1 to 4 include clinical experience built around 4 life cycle pillars: Child Health; Mental Health; Reproductive Health; Ageing and Health. Each pillar should not be seen as a discipline specific silo; rather, together the emphasis is on the patient in the community, at home, in the GP surgery and in different hospital settings at all stages of life. Content for each pillar is co-designed and co-delivered by both primary and secondary care physicians. Each pillar will commence with a one-week introduction ('pillar week') at QUB followed by 8 weeks of workplace learning - 6 weeks in the secondary care environment (including the Emergency Department) and 2 weeks in General Practice. Inter-professional and simulated learning opportunities will also be provided. General Practice will constitute the Longitudinal Integrated Clerkship component of Year 4. Students will be attached to the same general practice in four, two-week long placements throughout the year.

	For each pillar the 2 weeks in primary care will include some focus on learning opportunities pertinent to the relevant pillar. Crucially, it offers 'overall' primary care learning time to encompass the full range of patients and care in community settings. The emphasis will be on: Patient-centred care, Population centred care, the efficacy of general practice. Case-based learning will again be used to integrate the 4 GCAT (Global and Population Health, Clinical Science and Practice, Achieving Good Medical Practice, Teamwork for Safe Care) themes, provide standardisation of learning and provide a 3rd 'spiral' of the body systems as they present throughout the life cycle. Key curriculum themes (GCAT) will also be integrated as appropriate into the teaching programme. 1. Personal and Professional Development Portfolio The Learning Outcomes have been updated with the Learning Outcomes below relating to the following module units: Child Health; Mental Health; Women's Health; Cancer, Ageing and Health; Portfolio. They have been changed **to**: Apply an ethical framework to solve ethical dilemmas commonly encountered in primary care has been changed to – Apply an ethical framework to solve ethical dilemmas across clinical contexts. Integrate relevant anatomy, physiology, biochemistry, immunology, pathology, microbiology of illness to each clinical specialty has been changed to – Integrate relevant anatomy, physiology, biochemistry, immunology, pathology, microbiology of illness across each pillar area.

	The following Learning Outcomes have been **removed:** • Describe the process of clinical audit and its application. • Describe the principles of Evidence Based Medicine and be able to critically appraise a scientific paper. • interpret common statistical tests used in medical research publications. • Critically appraise a range of research information including study design, the results of relevant diagnostic, prognostic and treatment trials, and other qualitative and quantitative studies as reported in the medical and scientific literature. • Describe the principles of quality assurance, quality improvement, quality planning and quality control, and in which contexts these approaches should be used to maintain and improve quality and safety. • Describe basic human factors principles and practice at individual, team, organisational and system levels and recognise and respond to opportunities for improvement to manage or mitigate risks. • Apply the principles and methods of quality improvement to improve practice (for example, plan, do, study, act or action research), including seeking ways to continually improve the use and prioritisation of resources. The following Learning Outcomes have been added to module MED5022 Preparation for Practice 1 • Describe the process of clinical audit and its application. • Describe the principles of Evidence Based Medicine and be able to critically appraise a scientific paper. • Interpret common statistical tests used in medical research publications.

	• Critically appraise a range of research information including study design, the results of relevant diagnostic, prognostic and treatment trials, and other qualitative and quantitative studies as reported in the medical and scientific literature. • Describe the principles of quality assurance, quality improvement, quality planning and quality control, and in which contexts these approaches should be used to maintain and improve quality and safety. • Describe basic human factors principles and practice at individual, team, organisational and system levels and recognise and respond to opportunities for improvement to manage or mitigate risks. • Apply the principles and methods of quality improvement to improve practice (for example, plan, do, study, act or action research), including seeking ways to continually improve the use and prioritisation of resources.

BSc Biomedical Science (biomedsci@qub.ac.uk)	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: The changes include editing, clarification of Learning Outcomes, update of compulsory elements, skills, course content, contact and non-contact teaching methods, supplementary and resit profiles and the proportion of continuous assessment in assessment profiles and will impact the following modules: • Module BMS3101Clinial Biochemistry • Module BMS2106 The Sciences of Disease • Module BMS2110 Principles of Cell Biology • Module BMS1104 Human Structure and Function • Module BMS3104 Molecular Markers of Disease • Module BMS3108 Biology of Human Infection • Module BMS3112 Research Project • Module BMS2107 Professional Practice in Biomedical Science • Module BMS2111 Clinical Genetics

BSc Biomedical Sciences (biomedsci@qub.ac.uk)	We are writing to inform you that a new programme specific regulation has been introduced to your BSc (Hons) Biomedical Science degree pathway in response to a policy from the accreditation body - the Institute of Biomedical Science (IBMS). The Institute of Biomedical Science sets the overall requirements for the Accreditation of Higher Education Programmes (AHEP) in Biomedical Science. Accordingly, for your degree programme to be accredited by the Institute of Biomedical Science, it must conform to the AHEP requirements. The IBMS has updated its accreditation standard on the use of Compensation and Condonement (See section 4.2 v and 4.2 vi here; Criteria and Requirements for the Accreditation of BSc (Hons) in Biomedical Science - Institute of Biomedical Science (ibms.org)/) which has required the University to introduce a new programme specific regulation to protect the accredited status of your degree. The regulation is as follows: “For the award of the accredited BSc (Hons) Biomedical Science students must pass all core modules (360 CATS)”. For students enrolled on the programme, this new regulation means that the University cannot award you an accredited BSc (Hons) in Biomedical Science unless you pass all modules (i.e., all 360 CATS) within your programme. Upon successful completion of 320

	CATS which must include a pass in the research project module, the Board of Examiners can award a non-IBMS accredited BSc (Hons) in Medical Biosciences. In addition to this new regulation, you must continue to satisfy the requirements of the University's Study Regulations and any other programme specific regulations. We have taken measures to minimise the impact on students, and we anticipate that the vast majority will not be impacted in their pursuit of an accredited degree. Nevertheless, the School will keep this matter under review and explore additional mitigations as necessary to support you throughout your studies.
BSc Medical Science with Intercalate (medicaled@qub.ac.uk)	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: The changes include editing, clarification of Learning Outcomes, update of compulsory elements, skills, course content, contact and non-contact teaching methods, supplementary and resit profiles for: • Module BMS3112 Research Project • Module BMS3105 Embryology and Developmental Biology A proportion of continuous assessment will impact the following modules:

Module Code	Assessment Profile changed from		Change to	
BMS3102 Advanced Neurosciences	Written paper (180)	60	Written paper	60
	Oral Presentation	10	Continuous Assessment	40
	Critical Appraisal (1000 word)	15		
	Class test	15		
BMS3106 Principles of Pharmacology & Therapeutics	Written Paper	50	Written paper	50
	Problem-solving exercises (x2)	20	Continuous Assessment	50
	Essay	10		
	Poster	10		
	Oral Presentation	10		
BMS3107 Cardiovascular Pathobiology & Treatment	Written Paper	50	Written paper	50
	Oral Presentations (x3)	30	Continuous Assessment	50
	Essays (x2)	20		

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<td>BSc Hons Human Biology
(biomedsci@qub.ac.uk)</td>
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We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme:

The changes include editing, clarification of learning outcomes, update of compulsory elements, skills, course content, contact and non-contact teaching methods, supplementary and resit profiles:

The proportion of continuous assessment will change in the following modules:
Module BMS2101 Anatomical Sciences

From:
<table>
<tr><td>Written Paper (120)</td><td>40%</td></tr>
<tr><td>Anatomy Structured Practical Observation Tests and Presentation elements</td><td>40%</td></tr>
<tr><td>Microanatomy Class Presentation</td><td>20%</td></tr>
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To:
<table>
<tr><td>Written Paper</td><td>40%</td></tr>
<tr><td>Continuous Assessment</td><td>60%</td></tr>
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Module BMS3112 Research Project
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From		To	
Science Article	20	Review	20
Dissertation	40	Dissertation	40
Reports	20	Reports (x2)	20
Presentation	20	Presentation	20

The Supplementary and Resit profile will be amended for the modules listed below:

Module Code	Resit Profile changed from	Change to
BMS2014 Scientific Methods/Statestics	Resit Profile: Students must redo the assessment element they failed i.e. written exam paper or an additional piece of coursework as appropriate or both.	The requirements of individual continuous assessments may vary from year to year, but details of this will be made available at the start of each year. Resit Profile: Students must redo the assessment element they failed i.e. where they have achieved a mark <40% for either the written exam paper or continuous assessment, or both. If the written exam is failed they will take a resit exam at the first opportunity; an additional piece of work will be required from a student who fails the continuous assessment element overall
BMS2108 Psychological Sciences		
BMS3102 Advacned Neurosciences		

	BMS3106 Principles of Pharmacology & Therapeutics		
	BMS3107 Cardiovascular Pathobiology & Treatment		
	BMS2028 Human Physiological Measurement BMS 2015 Molecular Cell Biology	Resit Profile: Additional elements of coursework which must achieve a minimum of 40% to pass. The mark will be capped at 40% for classification purposes	Resit Profile: Additional elements of coursework which must achieve a minimum of 40% to pass. The mark will be capped at 40% for classification purposes. an additional piece of work will be required from a student who fails the continuous assessment element overall

The assessment profile will change for the modules listed below:

Module Code	Assessment Profile changed from	Change to

BMS2105 Molecular Cell Biology	Research Paper Analysis	25	Coursework	100
	Essay	50		
	Class MCQ	25		
BMS3102 Advacned Neurosciences	Written paper (180)	60	Written paper (180)	60
	Oral Presentation	10	Continuous Assessment	40
	Critical Appraisal (1000 word)	15		
	Class test	15		
BMS3106 Principles of Pharmacology & Therapeutics	Written Paper	50%	Written paper	50
	Problem-solving exercises (x2)	20%	Continuous Assessment	50
	Essay	10%		
	Poster	10%		
	Oral Presentation	10%		
BMS3107 Cardiovascular Pathobiology & Treatment	Written Paper	50%	Written paper	50
	Oral Presentations (x3)	30%	Continuous Assessment	50
	Essays (x2)	20%		

Pharmacy (pharmacyinfo@qub.ac.uk)

BSc Pharmaceutical Sciences

BSc Pharmaceutical Sciences (Sandwich)

BSc Pharmaceutical Biotechnology

BSc Pharmaceutical Biotechnology (Sandwich)

We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme:

We are combining the content of two modules into one larger module, which will provide students with a more coherent and integrated approach towards our teaching of the physical and chemical properties of drugs. Some content about the analysis of drugs (which was taught in second year) is becoming part of this new module, with some less relevant content being removed. This change is part of our continuing process of review and improvement, to ensure the degree is contemporary and will produce graduates to meet the needs of the pharmaceutical industry.

Module	**Type of change**	**Details**
PMY1025	Module title	Module title change from 'Physiochemical principles for Formulation to 'Properties and analysis of drug molecules'.
	CATS	**CATS/CREDITS** change from 20 to 40

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<tr><td></td><td>Content

Assessment</td><td>Number of lectures changes from 32 (PMY1025 Structure, Reactivity and Mechanism in Organic and Bioorganic Chemistry), and 34 (CHM1004 Structure, Reactivity and Mechanism in Organic and Bioorganic Chemistry) to 50 plus 12 seminars

Number of workshops and laboratory practical’s changes from 4 (PMY1025) [and 4 (CHM1004)] to 5 practical’s and 3 workshops

Assessment
Change from 75% exam and 25% coursework (PMY1025) [and 100% coursework (CMH1004)] to 40% exam and 60% coursework..</td></tr>
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<tr><td>MPharm</td><td>We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners, students and the professional body, the following changes will be introduced to your programme:

<u>All applicants:</u> Please be aware that the General Pharmaceutical Council (GPhC) published new Standards for the initial education and training of pharmacists in 2021 which means information about the MPharm degree is subject to change to meet the new Standards. Prospective students should note that these changes are ongoing.</td></tr>
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	One important change that will be introduced for the 2023 intake onwards relates to the selection and admissions processes. The 2021 Standards stipulate that "all admissions and selection processes must include an interactive component, to assess applicants' values and professional suitability". Previously, an interactive component was only required in certain circumstances such as graduate entry. Therefore, for 2023/24 entry and beyond, shortlisted applicants must complete an interview process. The course integrates the chemical and biological sciences with the discovery, design, evaluation and production of medicines and their clinical application to all areas of practice and person-centred care. Laboratory classes, simulation-based learning and inter-professional opportunities, coupled with experiential learning in the workplace, help students become experts in medicine and a valued and effective member of the healthcare team. The MPharm strives to embed the principles of equality, diversity, inclusion, and fairness to help reduce discrimination and health inequalities. Furthermore, students will learn about the importance of sustainable healthcare. Key Components of the MPharm course include: • Chemistry, physical pharmaceutics, physiology, microbiology, pharmacology, clinical therapeutics, statistics, numeracy, drug design and development, drug formulation,

	drug delivery and administration, pharmacogenomics, epidemiology, and relevant social sciences. • Skills development such as professional judgement, risk management, diagnostic and consultation skills. Attributes for prescribing, thereby enabling pharmacists to independently prescribe from the point of registration • Relevant legislation, ethics and professional standards. • Pharmacy Practice in both simulated and real-world environments • The importance of research (including undertaking a research project) and evidence-based healthcare Professional Accreditation

Nursing and Midwifery **(nursing@qub.ac.uk)**

BSc Professional Nursing (Adult, Children and Young People, Learning Disability and Mental Health)	We are writing to inform you of curriculum changes that will be introduced to your programme in 2023-24. Following feedback from external examiners and students, the following module changes will be introduced to your programme: Module NFM1120 Professional Nursing Values**:** Change of current assessment – peer feedback 10%, group activity 20% and E-workbook 70%. Peer feedback to become

	formative to allow for feedback in preparation for next module this is included in. Weighted assessment to now be %, Group activity 30% and E-workbook 70%. Module NFM1124 Public Health Perspective: Currently assessment includes Group poster 40%, Individual contribution 40% and peer feedback 10%. This will change to individual poster presentation 100% to ensure adequate individual assessment. Module NSY2124 Working Inter-professionally to Improve Mental Wellbeing**:** Change to assessment type to strengthen the emphasis on inter-disciplinary working within the module content and ease pressure of multiple coursework submissions in limited timeframe.