Programme Regulations 2026/27

Degree of Bachelor of Science with Honours in:

Biochemistry	**C700**
Biochemistry with Professional Placement Year	**C703**
Biochemistry with International Study Year	**1988U**
Biochemistry with Placement Year	**1304U**
Biomedical Sciences	**B940**
Biomedical Sciences with Professional Placement Year	**B943**
Biomedical Sciences with International Study Year	**1989U**
Biomedical Sciences with Placement Year	**1311U**

Integrated Master of Science in:

Biochemistry	**C701**
Biochemistry with Professional Placement Year	**C704**
Biochemistry with International Study Year	**1990U**
Biochemistry with Placement Year	**1307U**
Biomedical Sciences	**B900**
Biomedical Sciences with Professional Placement Year	**B944**
Biomedical Sciences with International Study Year	**1991U**
Biomedical Sciences with Placement Year	**1309U**

Notes

(i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations.

(ii) All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.

(iii) Unless otherwise stated under 'Type', modules are not core.

(iv) A compulsory module is a module which a student is required to study.

(v) A core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.

(vi) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.

1. Programme Structure

1.1 Stage 1

1.1.1 All programmes

(a) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD1000	Molecules of Life	20	20		4	*Core*
BMD1001	Infectious Threats	20	20		4	*Core*
BMD1002	Core Skills in Biosciences	20	10	10	4	*Core*
BMD1003	Core Concepts in Biosciences	20	10	10	4	*Core*
BMD1004	Therapeutic Mechanisms	20		20	4	*Core*
BMD1005	Cells to Systems	20		20	4	*Core*
BMD1100^{+}	Essential Bioscience Skills	-	-	-	4	*Core*

(b) In addition to studying Stage 1 modules, candidates will undertake basic bioscience skills training (BMD1100^{+}). These are essential skills, and competencies that must be achieved by the end of Stage 1. Candidates will be required to undertake and pass a competence-based Skills Audit. The audit is pass/fail and is undertaken during delivered sessions.

(c) To pass BMD1002 all portfolio components must be passed, alongside achieving an overall module mark of 40%.

1.2 Stage 2

1.2.1 All programmes

(a) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD2000	Skills for Bioscientists: Techniques, Tools, and Applications	20	20		5	*Core*
BMD2001	Genomics and Gene expression in Disease	20	20		5	*Core*
BMD2003	Anatomy and Cellular Systems	20		20	5	*Core*

(b) In order to pass BMD2001, all summative assessments and portfolio components must be passed, alongside achieving an overall module mark of 40%.

1.2.2 BSc and MSci Degree in Biochemistry

(a) Biochemistry candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BIC2001	Proteins: Structure, Function and Biochemistry	20	20		5	
BIC2000	Biochemistry of Gene Expression	20		20	5	

(b) All Biochemistry candidates shall take **one** optional module from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD2008	Bioinformatics for Biosciences	20		20	5	
BMD2011	Cell Signalling in Health and Disease	20		20	5	

BMD2014	Immunology of Health and Disease	20		20	5	
BMD2016	Microbial Genomics and Genome Mining	20		20	5	
BMD2020	Nature's Tinkerer: Mechanisms of Evolutionary Change	20		20	5	
BMD2021	Protein Trafficking: Mechanisms and Roles in Disease	20		20	5	
BMD2010	Business Enterprise for Bioscientists	20		20	5	
BMD2022 #	Respiration and Digestion: Global challenges in Health and Disease	20		20	5	

1.2.3 BSc and MSci Degree in Biomedical Sciences

(a) All Biomedical Sciences candidates shall take **one** optional module **from each** of the following lists:

List 1A:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD2004	Control of Physiological Systems	20	20		5	
BMD2005	Factors affecting Pharmacokinetics and Drug Disposition	20	20		5	
BMD2007	Neuroscience: Essentials and Beyond	20	20		5	
BMD2006	Microbial Mechanisms of Human Pathogenesis	20	20		5	
BIC2001	Proteins: Structure, Function and Biochemistry	20	20		5	

List 2A:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD2012	Chromosome Biology in Development and Disease	20		20	5	
BMD2017	Bacterial Cell and Molecular Biology	20		20	5	
BMD2013	Human Reproduction and Fertility	20		20	5	
BMD2015	Introduction to Population and Public Health	20		20	5	
BMD2018	Mitochondrial Biology and Function	20		20	5	
BMD2023 #	Sensory Motor, and Cognitive Neuroscience	20		20	5	
BMD2024	The Principles of Cancer	20		20	5	
BIC2000	Biochemistry of Gene Expression	20		20	5	

 # has a pre-requisite, see section 1.2.4

List 2B:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD2008	Bioinformatics for Biosciences	20		20	5	
BMD2011	Cell Signalling in Health and Disease	20		20	5	

BMD2014	Immunology of Health and Disease	20		20	5	
BMD2016	Microbial Genomics and Genome Mining	20		20	5	
BMD2020	Nature's Tinkerer: Mechanisms of Evolutionary Change	20		20	5	
BMD2021	Protein Trafficking: Mechanisms and Roles in Disease	20		20	5	
BMD2010	Business Enterprise for Bioscientists	20		20	5	
BMD2022 #	Respiration and Digestion: Global challenges in Health and Disease	20		20	5	

Optional Semester 2 Study Abroad

(b) Biosciences candidates may have the opportunity to study Semester 2, Stage 2 at a partner institution. Permission to undertake this study abroad opportunity is subject to approval by the Degree Programme Director as the core learning outcomes must be met.

(c) Candidates studying Semester 2, Stage 2 abroad shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD2009*	Biosciences study overseas semester	60		60	5	

* Specific modules will be confirmed by the partner institution, exchange coordinator, and degree programme director. Conversion of marks will take place prior to Board of Examiners with a converted pass mark of 40. If failed, students are eligible for resit according to host institution regulations.

1.2.4 Stage 2 Pre-requisite modules

Modules with pre-requisites are noted on the module outline and indicated above with #. Candidates selecting these modules must have passed the relevant pre-requisite module listed below:

Code	*Descriptive Title*	*Pre-requisite module code*	*Pre-requisite module descriptive title*
BMD2023	Sensory, Motor and Cognitive Neuroscience	BMD2007	Neuroscience: Essentials and Beyond
BMD2022	Respiration and Digestion: Global challenges in Health and Disease	BMD2004	Control of Physiological Systems

1.3 Optional Placement Year for all programmes

(a) On completion of Stage 2 and before entering Stage 3, all candidates (BSc and MSci) may have the opportunity to undertake a Professional Placement, International Study Year or Careers-run Placement year with an approved organisation. Permission to undertake any of these placements is subject to approval by the Degree Programme Director. Candidates who fail Stage 2 may not complete a placement year. On successful completion of the optional year, candidates will return to complete the relevant Stage 3 modules of their degree. Candidates who fail the placement will return to complete Stage 3 on the original degree code.

(b) Candidates completing a programme with Professional Placement Year shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3030*	Professional Placement Year	120	60	60	6	*Core*

*To pass BMD3030, candidates must achieve a mark of at least 40 in each of the three components of assessment (Report, Oral Presentation or blog post, and Supervisor Report). If the Report, Oral Presentation or blog post is failed, there is opportunity for resit to gain a pass mark. However, no resit can be offered for the Supervisor Report. Thus, if the Supervisor Report is failed, this will constitute a fail for the entire module.

(c) Candidates completing a programme with International Study Year shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3032*	International Study Year	120	60	60	6	Core

*Candidates will study modules to the equivalent of 120 credits at a partner institution. To pass BMD3032 candidates must pass 90 credits at first attempt, no resit opportunity is available. Candidates are also required to pass the Professional Skills Assessment prior to undertaking the Study Year, no resit opportunity is available, and Reflective Log for which normal resit opportunities apply.

(d) Candidates completing a programme with Placement Year shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
NCL3000	Careers Service Placement Year Module	120	60	60	6	Core

1.4 Stage 3

1.4.1 All programmes

(a) All candidates shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3005	Becoming a Bioscientist: Skills for Research and Beyond	20	10	10	6	Core

(b) In order to pass BMD3005, all summative assessments and portfolio components must be passed, alongside achieving an overall module mark of 40%.

(c) All BSc candidates shall take ONE of the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3000	Research Project	40		40	6	
BMD3002	Research Project Overseas	40		40	6	

(d) All MSci students shall take the following compulsory module:

BMD3004	Research Project for Stage 3 MSci	40		40	6	

1.4.2 BSc and MSci Degree in Biochemistry

(a) Biochemistry candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BIC3000 #	Biochemistry of Disease	20	20		6	
BIC3001 #	Applied Biochemistry for Drug Discovery	20	20		6	

 # has a pre-requisite, see section 1.4.4

(b) All Biochemistry candidates shall take **one** optional module from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3024	Rare Diseases: Genetic Variants to Physiological Function and Therapies	20	20		6	
BMD3016	Microbiota and Pathogens in Fundamental Research and the Clinic	20	20		6	
BMD3015	In vivo research	20	20		6	
BMD3019	Neurodegenerative and Neurological Disorders of the Nervous System	20	20		6	
BMD3022	Patterns and Determinants of Disease in Human Populations	20	20		6	
BMD3012	Evolutionary Genomics in Fundamental Research and the Clinic	20	20		6	
BMD3025 #	The Application of Bioinformatics Techniques to Biomedical Data	20	20		6	
BMD3027	Therapeutic Applications of Cell Signalling	20	20		6	
BMD3008	Applied Technologies enabling Biosciences – AI, cross-scale imaging, cytometry and 'omics	20	20		6	

 # has a pre-requisite, see section 1.4.4

1.4.3 BSc and MSci Degree in Biomedical Sciences

(a) All candidates shall take **one** optional module from **each of** the following lists:

List 3A:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*

BMD3024	Rare diseases genetic variants to physiological function and therapies	20	20		6	
BMD3016	Microbiota and Pathogens in Fundamental Research and the Clinic	20	20		6	
BMD3015	In vivo Research	20	20		6	
BMD3019	Neurodegenerative and Neurological Disorders of the Nervous System	20	20		6	
BMD3012	Evolutionary Genomics in Fundamental Research and the Clinic	20	20		6	
BMD3025 #	The Application of Bioinformatics Techniques to Biomedical Data	20	20		6	
BMD3026	The Science of Ageing: From Biological Mechanisms to Societal Impact	20	20		6	
BMD3027	Therapeutic Applications of Cell Signalling	20	20		6	
BMD3008	Applied Technologies enabling Biosciences – AI, cross-scale imaging, cytometry and 'omics	20	20		6	

 # has a pre-requisite, see section 1.4.4

List 3B:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3029	Biomedical Engineering & Biotechnology	20	20		6	
BMD3009	Cancer Biology and Therapy	20	20		6	
BMD3007 #	Antimicrobials – Mode of action, Discovery, and Resistance	20	20		6	
BMD3011	Clinical Movement, Balance and Mobility Analysis	20	20		6	
BMD3013	Bioethics in the Biosciences	20	20		6	
BMD3031	Molecular Pathology	20	20		6	
BMD3018	Molecular Oncology and Cancer Therapeutics	20	20		6	
BMD3020*	Neuropharmacology	20	20		6	
BMD3010	Cardiovascular development and disease	20	20		6	
BIC3000 #	Biochemistry of Disease	20	20		6	

 # has a pre-requisite, see section 1.4.4

*** currently not offered**

List 3C:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD3006 #	Advanced Research Topics in Neuroscience	20	20		6	
BMD3014	Human Disease Genetics	20	20		6	
BMD3017	Mitochondrial dysfunction: A driver of rare and common disease	20	20		6	
BMD3021	Omics and AI for emerging and future biomedicine	20	20		6	
BMD3022	Patterns and Determinants of Disease in Human Populations	20	20		6	
BMD3023	Precision Medicine, Genomics and Informatics	20	20		6	
BMD3028	Translational Bioscience Research: From Bench to Bedside to Improve Human Health	20	20		6	
BIC3001 #	Applied Biochemistry for Drug Discovery	20	20		6	

 # has a pre-requisite, see section 1.4.4

1.4.4 Stage 3 Pre-requisite modules

Modules with pre-requisites are noted on the module outline and indicated above with #. Candidates selecting these modules must have passed the relevant pre-requisite module listed below:

Code	*Descriptive Title*	*Pre-requisite module code*	*Pre-requisite module descriptive title*
BMD3006	Advanced Research Topics in Neuroscience	BMD2007	Neuroscience: Essentials and Beyond
BMD3007	Antimicrobials – Mode of action, Discovery, and Resistance	BMD2017	Bacterial Cell and Molecular Biology
BMD3025	The Application of Bioinformatics Techniques to Biomedical Data	BMD2008	Bioinformatics for Biosciences
BIC3000	Biochemistry of Disease	BIC2001 BIC2000	Proteins: Structure, Function and Biochemistry Biochemistry of Gene Expression
BIC3001	Applied Biochemistry for Drug Discovery	BIC2001 BIC2000	Proteins: Structure, Function and Biochemistry Biochemistry of Gene Expression

1.5 Stage 4

1.5.1 Compulsory module MSci All Programmes

All candidates shall take the following compulsory module:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BMD4099	Research Project	80	20	60	7	

1.5.2 Optional modules MSci All programmes

Candidates shall choose two optional 20 credit modules from the list below*: Module selection must be approved by the Degree Programme Director and relevant curriculum chair and all modules must be level 7:

*list is subject to change

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
MMB8003	The Biological Study of Behaviour	20	20		7	
MMB8004	Ageing & Health				7	
MMB8005	Experimental Medicine & Therapeutics	20	20		7	
MMB8006	Drug Discovery & Development	20	20		7	
MMB8007	Cancer Studies	20	20		7	
MMB8008	Chromosome Biology and Cell Cycle Control in Health and Disease	20	20		7	
MMB8009	Clinical Epidemiology	20	20		7	
MMB8010	The Biological Basis of Psychiatric Illness & its Treatment	20	20		7	
MMB8015	Applied Immunobiology of Human Disease	20	20		7	
MMB8016	Molecular Microbiology	20	20		7	
MMB8019	Sensory and Cognitive System Neuroscience	20	20		7	
MMB8020	Scientific Basis of Neurological Disorders	20	20		7	
MMB8022	Regenerative Medicine & Stem Cells	20	20		7	
MMB8025	Transplantation Sciences	20	20		7	
MMB8030	Genetic Medicine	20	20		7	
MMB8037	Cardiovascular Science in Health and Disease	20	20		7	
MMB8038 *	Bioscience Research Development and Enterprise	20	20		7	
MMB8044	Exercise in Health and Disease	20	20		7	
MMB8046	Drug Delivery and Nanomedicine	20	20		7	
MMB8048	Human Health and the Impact of Microbial Genomics	20	20		7	

MMB8050	Therapeutic Applications of Cell Signalling Pathways	20	20		7	
MMB8052	Bioinformatics for Biomedical Scientists	20	20		7	
MMB8058	Mechanisms in Genetic Disease: from Genotype to Phenotype	20	20		7	
MMB8059	Metabolism in Health and Disease	20	20		7	

***Module suspended for 2026/27**

2 Progression

(a) Candidates wishing to progress to Stage 2 must have met the pass requirements, achieving no less than 40% for all modules and obtaining a pass in the Essential Bioscience Skills audit.

(b) Candidates wishing to progress / transfer to Stage 3 of MSci must have achieved a Stage 2 weighted average of no less than 60%.

(c) MSci candidates wishing to progress to Stage 4 of the MSci must have achieved a Stage 3 weighted average of no less than 60%, no less than 60% overall in module BMD3000/BMD3002/BMD3004 and no less than 50% in any assessed component of BMD3000/BMD3002/BMD3004.

(d) Candidates who are unable to progress under 3(b) or (c) above will be transferred to the respective BSc programme.

3 Assessment Methods

Details of the assessment pattern for each module are explained in the module outline.
Please note that assessment of post-graduate modules may occur outside of undergraduate term dates.

4 Degree Classification

4.1 BSc degrees

(a) BSc candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2 and 3 with the weighting of the stages being 1:2 for Stage 2 and Stage 3 respectively. Those candidates who are intercalating (joined Stage 3 from medicine, dentistry or veterinary degrees) are exempt from this regulation and degree classification will be based solely on stage 3 modules (120 credits).

(b) Exit velocity will not be used: the stages are already weighted (1:2 for BSc degrees).

(c) Performance in individual modules will not be used for promotion.

(d) The Placement year does not contribute to the degree classification. However, candidates studying on these programmes must pass their placement module to graduate with one of these awards.

(e) A BSc candidate will be promoted if their final weighted average lies within 1% of the borderline (after rounding) **AND** 50% or more of the module credits are in the higher degree class(es) at **both** Stage 2 and Stage 3, with no more than 40 module credits in classes two or more below the proposed final class. Intercalating/direct entry candidates are exempt from this regulation and will be promoted if their final weighted average lies within 1% of the borderline (after rounding) **AND** 50%

or more of the module credits are in the higher degree class(es) at Stage 3, with no more than 20 module credits in classes two or more below the proposed final class.

(f) In accordance with university regulations, a BSc candidate with a weighted average up to 2% below a classification borderline will be **considered** (with any special circumstances being noted) by the Board of Examiners for promotion to the higher degree classification by use of discretion. Note however that a requirement to *consider* using discretion is not a requirement to use discretion.

4.2 MSci degrees

(a) Candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2, 3 and 4 with the weighting of the stages being 1:2:3 for Stage 2, Stage 3 and Stage 4 respectively.

(b) Exit velocity will not be used: the stages are already weighted (1:2:3 for MSci degrees).

(c) Performance in individual modules will not be used for promotion.

(d) The Placement Year does not contribute to the degree classification. However, candidates studying on these programmes must pass their placement year to graduate with one of these awards.

(e) An MSci candidate will be promoted if their final weighted average lies within 1% of the borderline (after rounding) **AND** 50% or more of the module credits are in the higher degree class(es) at each of Stage 2, Stage 3 and Stage 4, with no more than 60 module credits in classes two or more below the proposed final class.

(f) In accordance with university regulations, an MSci candidate with a weighted average up to 2% below a classification borderline will be **considered** (with any special circumstances being noted) by the Board of Examiners for promotion to the higher degree classification by the use of discretion. Note however that a requirement to *consider* using discretion is not a requirement to use discretion.

5. Intercalation

The BSc Bioscience 3-year programmes accept intercalating students from Medicine, Dentistry and Veterinary degrees undertaken at Newcastle University and other UK institutions. Students will intercalate into the 3rd year of the degree programme.

6. Exemptions to the University Taught Programme Regulations

6.1 BSc degrees

The BSc Biomedical Sciences and BSc Biochemistry offered with Professional Placement Year (C703, B943) and with International Study Year (1988U, 1989U) have a University exemption from the University's Taught Programme Regulations in relation to the offer of a resit for BMD3030 – see Section 1.3 (b) and BMD3032 – see Sections 1.3 (c). In the event of any inconsistency between the programme and University regulations in relation to the above section, the programme regulations take precedence over the University regulations.

6.2 MSci degrees

The MSci Biomedical Sciences and MSci Biochemistry offered with Professional Placement Year (B944, C704) and with International Study Year (1991U, 1990U) have a University exemption from the University's Taught Programme Regulations in relation to the offer of a resit for BMD3030 – see Section 1.3 (b) and BMD3032 – see Sections 1.3 (c). In the event of any inconsistency between the programme and University

regulations in relation to the above section, the programme regulations take precedence over the University regulations.