

Programme Information		
Programme Title	Programme Code	HECoS Code
Physics and Music Performance	F3W3	For Registry Use Only

Award	Length of Study	Mode of Study	Entry Point(s)	Total Credits	
				ECTS	CATS
BSc	4 Academic years	Full-time	Annually in September	300	600
DipHE(*)	2 academic years	Full-time	N/A	132.5	265
CertHE(*)	1 academic year	Full-time	N/A	82.5	165

(*)The DipHE and CertHE exit awards are not accredited by any professional body. They may be offered to a student as an exit award at the discretion of the Board of Examiners. All students must apply to and join the BSc.

Ownership			
Awarding Institution	Imperial College London Royal College of Music	Faculty	Natural Sciences
Teaching Institution	Imperial College London Royal College of Music	Department	Physics
Associateship	Royal College of Science	Main Location(s) of Study	South Kensington Campus
External Reference			
Relevant QAA Benchmark Statement(s) and/or other external reference points	Physics, Astronomy and Astrophysics The Physics Degree (Institute of Physics)		
FHEQ Level	Level 6		
EHEA Level	1 st cycle		
External Accrator(s) (if applicable)			
External Accrator 1:	Institute of Physics (IoP)		
Accreditation received:	2015 (for current F3W3 programme)	Accreditation renewal:	2020
External Accrator 2:			
Accreditation received:		Accreditation renewal:	

Collaborative Provision			
Collaborative partner	Collaboration type	Agreement effective date	Agreement expiry date
Royal College of Music	Joint award	September 2011	
Specification Details			
Programme Lead		Dr Robert Forsyth (DUGS)	
Student cohorts covered by specification		2019-2020 entry	
Date of introduction of programme			
Date of programme specification/revision		March 2022	

Programme Overview
<p>This specialist course, taught jointly by Imperial and the Royal College of Music (RCM), enables you to achieve a degree level education in both physics and music performance and prepares you for a professional career in either field. You will study all the core material from our standard three-year BSc Physics programme, as well as some optional modules, to ensure that you graduate as a fully qualified physicist. At the same time, you will complete the main performance elements of the Royal College of Music's BMus degree on one principal instrument or as a composer. Due to the demanding workload, the programme is spread out over four years.</p> <p>Physics is the <i>fundamental</i> science whose principles and laws underpin most other science and engineering disciplines. At the heart of a physics degree is the ability to solve problems concerning the physical world. Problems in physics can relate to phenomena on gigantic scales such as the cosmos, or minutely small ones (e.g. quantum particles) and virtually any other scale in between. Ultimately you will develop a large range of problem-solving skills that can be applied to many other (seemingly unrelated) situations. Hence, by the time you complete your physics degree, you would have created a strong platform with which to launch your professional career along many different trajectories. At the RCM you will be provided with specialised musical education and professional training at the highest international level for instrumental performers and composers, bringing you to the threshold of professional standards.</p> <p>The Physics elements of your degree programme will be taught at our South Kensington campus with the Music elements at the RCM immediately adjacent to this campus on Prince Consort Road. The Physics Department is at the forefront of physics research and education. Comprising of nine internationally renowned research groups, the Blackett Laboratory is amongst the strongest in the UK containing many world-leading researchers. The people who will deliver the programme to you include these researchers that range from graduate teaching assistants (GTA) in labs and tutorials, to postdoctoral researchers and academic staff who have a high level of expertise in their specific field. At the RCM you will be taught by staff highly regarded within the music profession who are resourceful and committed teachers.</p> <p>The Physics elements of your degree programme will comprise all the core modules of the standard BSc programme, compulsory modules, elective modules, laboratory work, project work, and collaborative group work¹. The core modules are largely common for most Physics degree programmes and include mathematics,</p>

¹ **Core** modules are those which serve a fundamental role within the curriculum, and for which achievement of the credits for that module is essential for the achievement of the target award. Core modules must therefore be taken and passed in order to achieve that named award. **Compulsory** modules are those which are designated as necessary to be taken as part of the programme syllabus. Compulsory modules can be compensated. **Elective** modules are those which are in the same subject area as the field of study and are offered to students in order to offer an element of choice in the curriculum and from which students are able to select. Elective modules can be compensated.

mechanics, vibrations and waves, electromagnetism, optics, thermodynamics, statistical physics, relativity, quantum physics, atomic, nuclear and particle physics, and solid state physics. The majority of the core modules are taught in Years 1 and 2. In Years 3 and 4 you are free to choose from a wide range of elective modules, reflecting the diverse research specialisms of the Department. In parallel you will complete the main performance elements of the RCM's BMus degree on one principal instrument or as a composer.

Student well-being is central to all we do, and in this regard a robust pastoral support system is in place throughout your studies. You will be assigned a personal tutor (who is also an academic member of staff) from the very beginning, plus there is further support in the form of a permanent Student Liaison Officer (SLO), Disabilities Officer, and several other bespoke mindfulness and well-being programmes run by staff and students.

Throughout your degree, you are also offered a broad range of skills by both Imperial and the RCM to prepare you for the world outside university. This programme aims to prepare you well to take your career in either a physics or music performance direction after your degree. Our physics graduates are much sought after for their analytical and problem-solving skills and, in general, approximately half of our physics graduates go on to study further at postgraduate level, such as MSc or PhD degrees whether in the UK or abroad. Others gain employment in a wide range of graduate destinations ranging from traditional 'technical' industries, such as oil and gas, to business consultancy, banking, finance, and the public sector such as education, health, or defence.

Learning Outcomes

On completion of Year 1, you will be able to:

1. demonstrate knowledge and a basic understanding of some of the fundamental principles, concepts and associated mathematical tools of physics including mechanics and special relativity, oscillations, waves, optics and electricity and magnetism;
2. appreciate the importance of mathematics to physics and be able to express physics problems using appropriate mathematical language.
3. solve well-defined problems in physics, identifying appropriate principles, selecting and using mathematical tools, making appropriate simplifications, estimations and approximations;
4. apply basic computational techniques to analyse data and solve scientific problems numerically;
5. use a range of basic physics laboratory equipment, design and run experiments to test basic scientific hypotheses, keep records, make measurements, use statistical analysis for experimental data and uncertainties and report findings;
6. work independently and constructively in small groups to plan and execute well-defined tasks and meet deadlines;
7. follow a structured approach to music practice/composing;
8. through performance or portfolio, demonstrate detailed study of a range of works.

In addition, on completion of Year 2, you will be able to:

9. demonstrate knowledge and an understanding of the fundamental models and concepts and associated mathematical tools of modern physics and their applications, including thermodynamics, quantum physics, condensed matter physics and electromagnetism;
10. organise and communicate complex scientific information to a range of audiences in written forms;
11. adopt an evidence-based approach making use, as appropriate, of mathematics, experiment and observation in line with the fundamental nature of physics as a science founded on mathematics, experiment and observation;
12. through performance or portfolio, demonstrate detailed study of an expanded range of repertoire;
13. demonstrate the musical and personal skills to perform with confidence (performers)/to take increasing advantage of opportunities offered for the performance of your music (composers);

In addition, on completion of Years 3 and 4, you will be able to:

14. apply an integrated understanding of classical and modern physics and associated mathematical tools to tackle both well-defined and open-ended problems making appropriate simplifications, estimations and approximations, to formulate solutions and present them logically;
15. apply in-depth knowledge and understanding in a few chosen advanced subjects in physics;
16. carry out open-ended extended investigations with supervision, using textbooks and primary scientific literature, analysing information and sources critically and presenting findings clearly;
17. work constructively as part of a team, planning and executing extended practical or theoretical projects and present findings in written and oral forms making use of information and communication technologies;
18. be objective, critically-thinking and curious and have the confidence to apply understanding and skill to tackle new and complex challenges within and beyond the discipline;
19. reflect critically on understanding, learning and skills, identifying strengths and areas for further development, to grow continually in expertise;
20. show increased knowledge and understanding of repertoire;
21. present a Final Recital/Final Portfolio at a level expected of a musician on the threshold of the profession.

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes

Entry Requirements

Academic Requirement	<p>For the Physics component with Imperial: A-level requirement: normally a minimum of A*A*A overall. Subject specific requirements: A* in Mathematics, A in Physics (or a comparable qualification recognised by the College). General Studies and Critical Thinking are not accepted.</p> <p>IB requirements: normally a minimum overall mark of 40. Subject specific requirement: 7, 6, 6 at higher level which must include Mathematics, Physics, and Chemistry (or a comparable qualification recognised by the College). For further information on Imperial College's entry requirements, please go to https://www.imperial.ac.uk/study/ug/apply/requirements/ugacademic/</p> <p>For the Music component with the RCM: A minimum standard broadly equivalent to Grade 8 with distinction in a suitable musical instrument in the Associated Board of the Royal Schools of Music (ABRSM) examination.</p>
Non-academic Requirements	N/A
English Language Requirement	<p>Standard requirement Please check for other Accepted English Qualifications</p>
Admissions Test/Interview	<p>Shortlisted candidates are invited for a Physics Department interview and an audition at the RCM which are held on the same day. Usually interview candidates will be offered a tour of the Imperial and RCM campuses and the Physics Department, as well as a group discussion about the course with a member of staff before the individual interview commences.</p>

The programme's competency standards documents can be found at:
<https://www.imperial.ac.uk/physics/students/admissions/undergraduate-admissions/applications-interviews-and-offers/>

Learning & Teaching Approach

Learning and Teaching Delivery Methods

The Physics programme is delivered using a range of methods including lectures, tutorials, laboratory classes, computational classes and directed supervision on projects. The exact nature of the session depends on the content, the number of people in the class, the point in the programme and the personal styles and preferences of the module coordinators. At the RCM delivery will include one-to-one Principal Study lessons in music performance and participation in masterclasses and College performance projects.

Lectures both at Imperial and the RCM have between about 250 students for core physics modules to as few as 20 for some electives. The size of the lecture theatre is selected to cater for the number of students on the module. Physics lectures are typically 50-minute oral presentations augmented, when appropriate, with the use of handwritten notes (on a board or visualiser), handouts of notes, multimedia presentations, live demonstrations, video clips, quizzes, in-class discussion and in-class exercises. You will sometimes be asked to do preparation in advance of sessions, for example, directed reading, revision of key material, or completion of problems. Lecturers provide **office hours** - drop in sessions where students can turn up without appointment to ask lecturers any questions they wish about the module. Lecturers will also supply directed learning guidance, often in the form of a weekly problem sheet with a range of self-study exercises and directed reading. Lectures are supported through online materials that may include notes, problem sheets and solutions, additional reading resources, interactive demonstrations and worksheets, lecture recordings, questionnaires and communications. At the RCM lectures provide a forum for the dissemination of ideas, information and skills to the end of establishing a sound and sustainable knowledge base. They serve as models for organizing materials into a coherent argument.

Tutorials and Seminars can range from small group teaching sessions with typically about 20-60 students with a lecturer and graduate teaching assistant to smaller sessions with four students and an academic. These may be used for problem solving, group exercises, discussion of problem sheets and questions arising from lectures. Tutorials often lead to open exchange and discussion of ideas going beyond the syllabus. Tutorials also take place for some RCM modules with group sizes between 5 and 15 students.

Laboratory sessions, taken only in Year 1 for this programme, provide specific and directed training on use of equipment and basic procedures on lab protocol including basic health & safety and hazard awareness, as well as open-ended experiments covering several hours of lab time with on-hand guidance from demonstrators. In most sessions you work with a lab partner. You will also work with laboratory technicians whom you will be expected to liaise with regarding many aspects of laboratory work. You will be trained in keeping a lab book and in scientific report writing.

Computing is usually taught in the department's computer teaching suite. Computing sessions for core modules will typically be in groups of about 30 students supported by a group of 4 or 5 teaching staff comprising graduate teaching assistants and at least one member of academic staff.

You will complete a one-term laboratory or essay **project** in Year 4 in which you work individually or with a project partner to complete some research under the supervision of a member of staff. Project supervision involves typically weekly meetings with a supervisor but can be much more involved; in situations where students work in the same lab as the supervisor the contact is likely to be much more frequent.

Overall Workload

Your overall workload consists of face-to-face sessions, independent learning and ongoing music practice. While your actual contact hours may vary according to the optional modules you choose to study, the following gives an indication of how much time you will need to allocate to different activities at each level of the programme. At Imperial, each ECTS credit taken equates to an expected total study time of 25 hours. Because music practice needs to be continuous throughout the calendar year rather than confined to the academic year, this programme is assigned 75 ECTS per year on average to reflect this additional work. Therefore, the expected total study time for this programme is between 1,500-2,000 hours per year. During academic term time for the first two years, scheduled contact hours are envisaged to take up about half the time you work on

the programme. This includes approximately 10-15 hours of lectures and tutorials, 6 hours of laboratory work and typically 5 hours of music tuition per week. The rest of the time is typically spent on independent learning, such as working on problem sheets, revising course material, writing lab reports, music practice, and background reading. From Year 3, and more so in Year 4, the pattern of work depends on your chosen electives, but you can typically expect to spend about 250 hours over each year in lectures, tutorials, music tuition, and on your BSc project with the remaining time on independent learning and music practice.

Assessment Strategy

Assessment Methods

A variety of assessment methods will be used to test your understanding. Assessments may be formative, summative or both.

Formative assessments do not contribute to the module mark but provide information on your progress as an individual and in the context of the teaching session. This allows you to learn by using your new skills to solve problems and receive feedback on your performance to guide your future learning. This supports you to achieve a better performance in the summative assessments which do count towards your module marks. Formative assessments also provide feedback to the teaching staff which allow us to adapt our teaching to the needs of the learner.

Summative assessments are used to assess your learning against the intended module learning outcomes and contribute towards your achievement of the programme learning outcomes, detailed above. All modules contain aspects of summative assessment and these assessments will contribute towards your mark for each year. Usually the grades for summative assessment are assigned by lecturers or graduate teaching assistant but occasionally your work will be peer assessed (i.e. your grade is provided by one or more of your fellow students), but always approved by a member of staff.

The choice of assessment method is largely determined by the nature of the module and its learning outcomes.

The main types of assessment include the following.

- **Computing reports and Laboratory reports** are usually marked by a graduate teaching assistant (and checked by a member of staff) or by a member of staff before being returned to the student. They often carry a summative grade.
- **Scientific writing exercises** may have both summative and formative assessment components.
- **Project reports** are typically summatively-assessed major pieces of work that are written as part of a project.
- **Oral presentations and/or vivas** may be done individually, sometimes in a pair and sometimes in a larger group. They often have a small summative grade component but some are wholly formative assessment with no grade attached.
- **Poster presentations** can be both summative and formative.
- **Written examinations** are associated with most non-laboratory and computing modules and often carry a relatively high fraction of the grade for the module.

Other in-course assessments that some modules may have include the following.

- **Written problems** may contain a combination of summative and formative assessment, with some problems for submission for assessment (either online, often as multiple choice, or by handwriting and paper delivery).
- **Progress tests and quizzes** feature in many modules and are often purely formative but may contain a summative grade.
- **Mastery tests** are exam style tests on the most essential elements of a module. They typically have a high passing grade and must be passed. Students are permitted to take the mastery tests on more than one occasion.

Assessment methods at the RCM include

- Music technical examinations
- Music performance recitals
- Portfolio and diary preparation

The table below is indicative of the balance of assessment based on a typical pathway through the course.

	Year 1	Year 2	Year 3	Year 4
Coursework	25%	20%	15%	15%
Practical	40%	40%	40%	55%
Written Examination	35%	40%	45%	30%

Academic Feedback Policy

Feedback is an essential part of learning and both the Physics Department and the RCM give high priority to providing timely and high quality feedback to students on all modules throughout the degree. Feedback highlights strengths and weaknesses of any previous work and identify areas for improvement. Feedback works best as an active exercise and you are expected to engage with all forms of feedback to maximise what you can get out of your learning.

Feedback will be provided for all assessments carried out as part of this programme and takes many forms depending on the nature and learning outcomes of the module involved. Examples of feedback styles are:

- Oral feedback to a group may be provided during or after lectures
- Personal feedback may follow from discussion with lecturers during office hours or meetings with Personal Tutors
- Interactive feedback may follow from peer group discussion
- Written feedback may take the form of solutions to coursework or writing on formal reports.

It is important to realise that not all feedback is structured and written into module specifications. Some of the most important feedback comes from one's own self-reflection and from real-time discussion (orally or online) with peers, graduate teaching assistants and lecturers. At the RCM you will receive continuous feedback of this type in regular one-to-one sessions with your Principal Study professors.

For formal assessments Imperial's policy is to provide formal feedback within 10 working days of submission for most exercises and the Department of Physics adheres to this policy. For any exceptions you will be informed in advance of the coursework being set.

Exams grades are provided after the examiners' meetings. Dates for these meeting will be provided during the academic year.

The College's Policy on Academic Feedback and guidance on issuing provisional marks to students is available at:

www.imperial.ac.uk/about/governance/academic-governance/academic-policy/exams-and-assessment/

Re-sit Policy

The College's Policy on Re-sits is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

Mitigating Circumstances Policy

The College's Policy on Mitigating Circumstances is available at: www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/

Additional Programme Costs

This section should outline any additional costs relevant to this programme which are not included in students' tuition fees.

Description	Mandatory/Optional	Approximate cost
N/A	N/A	N/A

Important notice: The Programme Specifications are the result of a large curriculum and pedagogy reform implemented by the Department and supported by the Learning and Teaching Strategy of Imperial College London. The modules, structure and assessments presented in this Programme Specification are correct at time of publication but might change as a result of student and staff feedback and the introduction of new or innovative approaches to teaching and learning. You will be consulted and notified in a timely manner of any changes to this document.

Programme Structure					
Year 1 – FHEQ Level 4					
You study all core and compulsory Physics modules. You take Level 4 Principal Study at the RCM and choose one of the modules from group A to study in Year 1					
Code	Module Title	Core/Elective	Group*	Term	Credits**
PHYS40001	Practical Physics: Laboratory, Computing and Problem Solving	Compulsory		1-3	10
PHYS40004	Vector Fields, Electricity and Magnetism	Core		1-3	7.5
PHYS40002	Mechanics and Relativity	Core		1-3	15
PHYS40003	Oscillations and Waves	Core		1-3	15
PHYS94013	Level 4 Principal Study (RCM)	Core		1-3	30
PHYS94002	Aural Training Level 4 (RCM)	Core	A	1-3	5
PHYS94014	Professional Portfolio (RCM)	Core	A	1-3	5
Credit Total					82.5
Year 2 - FHEQ Level 4 and 5					
You study all core Physics modules. At the RCM you take Level 5 Principal Study, the other of the group A modules not already taken in Year 1 and choose one of the modules from group B to study in Year 2					
Code	Module Title	Core/Elective	Group	Term	Credits
PHYS50002	Thermal Physics and the Structure of Matter	Core		1-3	10
PHYS50003	Differential Equations and Electromagnetism	Core		1-3	10
PHYS50004	Quantum Physics	Core		1-3	15
PHYS95013	Level 5 Principal Study (RCM)	Core		1-3	30
PHYS95006	Level 5 Aural (RCM)	Core	A	1-3	5
PHYS40008	Level 4 Musicianship & Improvisation (RCM)	Core	B	1-3	10
Credit Total					80

Year 3 - FHEQ Level 5 and 6

You study all core Physics modules. You take Level 6 Principal Study at the RCM and the other of the Group B modules not already taken in Year 2. You choose Physics elective modules from groups C and D to a total of 12.5-15 credits, with a maximum of one module from group C. We advise you to balance your work over Terms 1 and 2 but there is flexibility.

Code	Module Title	Core/Elective	Group	Term	Credits
PHYS60001	Nuclear and Particle Physics	Core		1	5
PHYS60002	Comprehensives	Core		1-3	15
PHYS60003	Solid State Physics	Core		1	5
PHYS96032	Level 6 Principal Study (RCM)	Core		1-3	30
PHYS94005	Level 4 Historical Studies (RCM)	Core	B	1-3	10
PHYS50006	Suns, Stars and Planets	Elective	C	3	5
PHYS50007	Mathematical Methods	Elective	C	2, 3	5
PHYS50005	Communicating Physics	Elective	C	1-3	5
PHYS50008	Environmental Physics	Elective	C	3	5
PHYS60006	Lasers	Elective	D	2	5
PHYS60007	Physics of Medical Imaging and Radiotherapy	Elective	D	2	7.5
PHYS60008	Principles of Instrumentation	Elective	D	2	5
PHYS60009	Statistical Mechanics	Elective	D	1	7.5
PHYS60005	Advanced Classical Physics	Elective	D	1	7.5
PHYS60010	Complexity and Networks	Elective	D	2	7.5
PHYS60011	Foundations of Quantum Mechanics	Elective	D	2	7.5
PHYS60012	Computational Physics	Elective	D	1-2	7.5
PHYS60013	Plasma Physics	Elective	D	2	7.5
PHYS60014	Astrophysics	Elective	D	1	7.5
PHYS60015	Group Theory	Elective	D	1	7.5
Credit Total					77.5/80

Year 4 - FHEQ Level 6 or 7

Students take Level 6 (Graduation Level) Principal Study at the RCM, normally for 30 credits but may be taken for 40 credits with permission of the RCM. Students must also take one Imperial I-Explore module and select one project module from group E. If Principal Study is taken for 30 credits, students choose modules from groups D and F to a total of 17.5-20 credits, subject to a maximum of one module from group F. If Principal Study is taken for 40 credits, students choose modules from group D to a total of 7.5-10 credits. We advise you to balance your work over Terms 1 and 2 but there is flexibility. With the agreement of the DUGS in both departments, up to 7.5 credits may be replaced by an elective module from another Imperial College department subject to space being available.

Code	Module Title	Core/Elective	Group	Term	Credits
PHYS96037	Level 6 (Graduation Level) Principal Study (RCM)	Core		1-3	30 or 40
N/A	I-Explore	Co-curricular		1,2	5/7.5
PHYS60006	Lasers	Elective	D	2	5
PHYS60007	Physics of Medical Imaging and Radiotherapy	Elective	D	2	7.5
PHYS60008	Principles of Instrumentation	Elective	D	2	5
PHYS60009	Statistical Mechanics	Elective	D	1	7.5
PHYS60005	Advanced Classical Physics	Elective	D	1	7.5
PHYS60010	Complexity and Networks	Elective	D	2	7.5
PHYS60011	Foundations of Quantum Mechanics	Elective	D	2	7.5
PHYS60012	Computational Physics	Elective	D	1-2	7.5
PHYS60013	Plasma Physics	Elective	D	2	7.5
PHYS60014	Astrophysics	Elective	D	1	7.5
PHYS60015	Group Theory	Elective	D	1	7.5
PHYS60016	Year 3 Project	Elective	E	1 or 2	7.5
PHYS60017	Essay Project	Elective	E	1 or 2	7.5
PHYS70008	Quantum Field Theory ²	Elective	F	1	7.5
PHYS70012	Advanced Particle Physics	Elective	F	2	7.5
PHYS70006	General Relativity	Elective	F	1	7.5

² If you choose to take Quantum Field Theory you must normally have completed and passed Advanced Classical Physics and Foundations of Quantum Mechanics in your third year.

PHYS70014	Cosmology	Elective	F	2	7.5
PHYS70016	Hydrodynamics	Elective	F	2	5
PHYS70019	Space Physics	Elective	F	2	7.5
PHYS70009	Quantum Information ³	Elective	F	1	7.5
PHYS70017	Laser Technology	Elective	F	2	7.5
PHYS70011	Unification - The Standard Model ⁴	Elective	F	1	7.5
PHYS70018	Quantum Theory of Matter	Elective	F	2	7.5
PHYS70010	Quantum Optics	Elective	F	1	7.5
PHYS70005	Introduction to Plasmonics and Metamaterials	Elective	F	1	7.5
PHYS70004	Information Theory	Elective	F	1	5
PHYS70015	Entrepreneurship for Physicists	Elective	F	2	7.5
PHYS70003	Concepts in Device Physics	Elective	F	1	7.5
PHYS70013	Atmospheric Physics	Elective	F	2	7.5
PHYS70007	Optical Communications Physics	Elective	F	1	5
	Level 5 Alexander Technique (RCM)	Elective	F	1-3	10
	Level 6 Aural (RCM) ⁵	Elective	F	1-3	10
	Aural in Professional Contexts (RCM) ⁶	Elective	F	1-3	10
	Level 5 Chamber Music (including Duo) (RCM)	Elective	F	1-3	10
	Level 5 Classical CD Production (RCM) ⁷	Elective	F	1-3	10

³ If you choose to take Quantum Information you must normally have completed and passed Foundations of Quantum Mechanics in your third year.

⁴ If you choose to take Unification you must normally have completed and passed Advanced Classical Physics and in your third year and must also take Quantum Field Theory in your fourth year.

⁵ normally requires L5 Aural as a prerequisite

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	Level 5 Conducting (RCM) ⁸	Elective	F	1-3	10
	Level 6 Contemporary Music in Action (RCM)	Elective	F	1-3	10
	Level 6 Historical Performance (RCM)	Elective	F	1-3	10
	Level 5 Historical Studies (RCM)	Elective	F	1-3	10
	Level 5 Psychology of Performance I or II (RCM)	Elective	F	1-3	10
Credit Total					60/62.5

* 'Group' refers to module grouping (e.g. a group of electives from which one/two module(s) must be chosen).

** All credits refer to ECTS

⁸ normally requires L5 Aural as a prerequisite

Progression

In order to progress to the next year of study, you must have passed all modules in the current year of study at first attempt, at resit or by a compensated pass.

Year One

You must:

- achieve an aggregate mark of at least 40.00% including where modules have been compensated.

Year Two

You must:

- achieve an aggregate mark of at least 40.00% including where modules have been compensated.

Year Three

You must:

- achieve an aggregate mark of at least 40.00% including where modules have been compensated.

Year Four

You must:

- achieve an aggregate mark of at least 40.00% including where modules have been compensated.

Classification

The marks from modules in each year contribute towards the final degree classification.

In order to be considered for an award, you must have achieved the minimum number of credits at the required levels prescribed for that award and met any programme specific requirements as set out in the Programme Specification.

Your classification will be determined through:

- i) aggregate module marks for all modules
- ii) year weightings

For this award, Year One is weighted at 7.50%, Year Two at 20.00%, Year Three at 36.25% and Year Four at 36.25%.

The College sets the class of undergraduate degree that may be awarded as follows:

- i) First 70.00% or above for the average weighted module results;
- ii) Upper Second 60.00% or above for the average weighted module results;
- iii) Lower Second 50.00% or above for the average weighted module results;
- iv) Third 40.00% or above for the average weighted module results.

Please find the full Academic Regulations at <https://www.imperial.ac.uk/about/governance/academic-governance/regulations/>. Please follow the prompts to find the set of regulations relevant to your programme of study.

Programme Specific Regulations

N/A

Supporting Information

The Programme Handbook is available at: <https://www.imperial.ac.uk/physics/students/current-students/undergraduates/physics-student-handbook/>

The Module Handbook is available at: <https://www.imperial.ac.uk/physics/students/current-students/undergraduate-and-masters-degree-courses-list/>

The College's entry requirements for postgraduate programmes can be found at: www.imperial.ac.uk/study/pg/apply/requirements

The College's Quality & Enhancement Framework is available at: www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance

The College's Academic and Examination Regulations can be found at: www.imperial.ac.uk/about/governance/academic-governance/regulations

Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".

www.imperial.ac.uk/admin-services/secretariat/college-governance/charters/

Imperial College London is regulated by the Office for Students (OfS) www.officeforstudents.org.uk/advice-and-guidance/the-register/

This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is primarily intended as a reference point for prospective and current students, academic and support staff involved in delivering the programme and enabling student development and achievement, for its assessment by internal and external examiners, and in subsequent monitoring and review.

Modifications

Description	Approved	Date	Paper Reference
N/A	N/A	N/A	N/A