Programme Specification

BSc Chemistry with Cosmetic Science **UCAS Code: F111**

For students entering Part 1 in September 2026 **UFCHECOS**

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This document sets out key information about your Programme and forms part of your Terms and Conditions with the University of Reading.

Awarding Institution	University of Reading
Teaching Institution	University of Reading
Length of Programme	3 years
Length of Programme with placement/year abroad	BSc Chemistry with Cosmetic Science with Study Year Abroad - 4 years (internal transfer only) BSc Chemistry with Cosmetic Science with a Year in Industry - 4 years (UCAS Code: F112)
Accreditation	The Royal Society of Chemistry
QAA Subject Benchmarking Group	Chemistry

Programme information and content

The programme aims to provide the next generation of chemists with a broad coverage of the core disciplines within Chemistry. You will study a range of chemistry topics ranging from Analytical, Organic, Inorganic and Physical Chemistry with a focus on Cosmetic Sciences as part of this programme. These topics are reinforced through extensive practical laboratory experience in our modern laboratories. Throughout the course there will be opportunities to work individually or as part of a team; this may take the form of a practical experiment or an oral presentation or a group exercise. These opportunities are designed to give you high-level intellectual and scientific training that will equip you for a range of challenging careers in the field of Cosmetic Chemistry.

This programme takes you on an exciting journey of exploration through Chemistry. It is supportive, yet appropriately challenging and enables you to synthesise the skills and knowledge gained, so you can confidently access more advanced topics. In part 2 and 3 you will be taking specialised Cosmetic Science modules that begin your development as Cosmetic Scientists. In Part 3 you will also have opportunities to select modules that are more specialised and will be of greatest interest to you, and offer opportunities to apply your learning to solve problems and think critically about real-world challenges.

Part 1:	Introduces you to the basic underpinnings of Inorganic, Organic, Physical Chemistry and relevant biology. This is through material that will begin as a revision of A-level topics, and will progress rapidly and present this familiar material in a new light. The goal of year 1 is to give you the tools necessary to help you become an independent learner, providing the necessary background to enable rationalisation and predictions for unseen processes and reactions.

Part 2:	Provides you with more in-depth study of Inorganic, Organic and Physical Chemistry, as well as the chemical basis of key cosmetic processes to explicitly link with the chemistry learnt thus far in the programme. The second year sees the introduction of a dedicated stream of Analytical chemistry that is also reflected in the content of the practical classes. The material covered in the second year is challenging; it builds on the content of year 1 and extends the complexity and depth of study to allow study and analysis of real world problems. Much of the material introduced in year 2 is still regarded as fundamental and a thorough understanding of the content is required for study in year 3.
Placement/Study abroad year:	The programme has an equivalent programme which features a placement year or year abroad component. All students are included in all of the sessions that run to encourage and prepare students to seek placements and/or study abroad opportunities. These begin in part one and are run by the Department and the Careers and Placements services. If you decide that you wish to undertake a placement or study abroad opportunity and are successful in finding a placement or study abroad opportunity, you should discuss transferring to the BSc Chemistry with Cosmetic Science with a Year in Industry programme with your Academic Tutor.
Part 3:	Gives you the opportunity to begin to see the application of Chemistry in the cosmetics industry at the forefront of its applications. The content is deliberately broad, covering all streams of the discipline. This material builds upon the chemistry and cosmetic science outlined in Part 2, and you will experience this through study of a series of smaller self-contained units within your core modules. An important component of final year study is the research project. Whether in a team or as an individual researcher, you will work with an assigned academic supervisor who will advise and encourage you to develop a piece of research work that is your own. You will be given a choice of the area in which you undertake your project work - more details of this can be found in the project handbook.

Programme Learning Outcomes - BSc Chemistry with Cosmetic Science

During the course of the Programme, you will have the opportunity to develop a range of skills, knowledge and attributes (known as learning outcomes) For this programme, these are:

	Learning outcomes
1	Formulate and explain a broad and balanced range of fundamental chemical concepts in the core areas of the discipline (Organic Chemistry, Inorganic Chemistry, Analytical Chemistry and Physical Chemistry and applied topics).
2	Work safely and competently in the laboratory by assessing and mitigating potential risks they may encounter, and applying health & safety and laboratory safe practice.
3	Apply appropriate methodologies and practical skills to solve a range of problems in chemistry.

4	Develop planning and investigative skills that draw on the existing literature to form new insights and propose avenues for further exploration.
5	Organize and interpret scientific information from the literature or the laboratory to produce written work such as lab reports, essays and dissertations for varied purposes and audiences.
6	Employ their knowledge and skills base (such as the effective teamworking, to work autonomously and to demonstrate high-level practical skills) from which they can proceed to graduate employment in the cosmetics industry or to further research studies in chemistry or multidisciplinary areas involving chemistry.
7	Effectively communicate information and chemical concepts at a level and in a format appropriate to the needs of a variety of purposes and target audiences.
8	Apply appropriate theoretical scientific principles to the development and production of cosmetic products.
9	Explore the chemical and biological sciences that underpin cosmetic science and that are required in order to understand the design and formulation of suitable cosmetic products.
10	Plan, design, conduct and report on an individual research project.

You will be expected to engage in learning activities to achieve these Programme learning outcomes. Assessment of your modules will reflect these learning outcomes and test how far you have met the requirements for your degree.

To pass the Programme, you will be required to meet the progression or accreditation and award criteria set out below.

In addition to the learning outcomes stated above if you are on a placement or study abroad programme you will have the opportunity to develop the following learning outcome:

Additional Learning outcomes
Placement By the end of the Placement Year Programme, students will have explored and developed their professional experience, skills and knowledge, contributing significantly towards their continuous learning and career prospects as graduates.

Module information

Each part comprises 120 credits, allocated across a range of compulsory and optional modules as shown below. Compulsory modules are listed.

Part 1 Modules:

Module	Name	Credits	Level
BI1CMP1	Cellular and Molecular Principles of Life	20	4
CH1IN1	Fundamentals of Atomic Structure and the Periodic Table	20	4
CH1MA1	Mathematics for Chemists	20	4
CH1OC2	Shape, Structure and Reactivity in Organic Chemistry	20	4
CH1PP2	Physical Processes and Molecular Organisation	20	4

CH1PR1	Chemistry Practicals 1	20	4

Part 2 Modules:

Module	Name	Credits	Level
CH2CS2	Core Cosmetic Science	20	5
CH2IN1	Further Inorganic Chemistry	20	5
CH2OR1	Further Organic Chemistry	20	5
CH2PH2	Further Physical Chemistry	20	5
CH2PR1	Chemistry Practicals 2	40	5

Modules during a placement year or study year (if applicable):

Students taking an Industrial Year will take the compulsory module:

Module	Name	Credits	Level
CH3IP1	BSc Industrial Placement	120	6

Students taking a Study Abroad Year will take the compulsory module:

Module	Name	Credits	Level
CH2SAY	Chemistry Study Abroad Year	120	5

If you take a year-long placement or study abroad, Part 3 as described below may be subject to variation.

Part 3 Modules:

Module	Name	Credits	Level
CH3CC1	Chemistry Core 1 (Inorganic and Organic)	20	6
CH3CC2	Chemistry Core 2 (Physical and Analytical)	20	6
CH3CS2	Further Cosmetic Science	20	6
CH3PRO	BSc Chemistry Project	40	6

Remaining credits in semester 2 will be made up of optional modules available in the Chemistry Department.

Placement opportunities

Placements:

You may be provided with the opportunity to undertake a credit-bearing placement as part of your Programme. This will form all or part of an optional module. You will be required to find and secure a placement opportunity, with the support of the University.

Study Abroad:

You may be provided with the opportunity to undertake a Study Abroad placement during your Programme. This is subject to you meeting academic conditions detailed in the Programme Handbook, including obtaining the relevant permissions from your School, and the availability of a suitable Study Abroad placement. If you undertake a Study Abroad placement, further arrangements will be discussed and agreed with you.

Optional modules:

The optional modules available can vary from year to year. An indicative list of the range of optional modules for your programme can be found online in the Course Catalogue. Details of optional modules for each part, including any additional costs associated with the optional modules, will be made available to you prior to the beginning of the Part in which they are to be taken and you will be given an opportunity to express interest in the optional modules that you would like to take. Entry to optional modules will be at the discretion of the University and subject to availability and may be subject to pre-requisites, such as completion of another module. Although the University tries to ensure you are able to take the optional modules in which you have expressed interest this cannot be guaranteed.

Teaching and learning delivery:

You will be taught through a wide range of approaches to teaching and learning in our programmes, spanning from seminars and digitally-enabled learning activities, to workshops and practical classes. These aim to maximise your engagement and accommodate students with different learning styles. The latter ensures that our teaching is diverse and inclusive, as our students are from a wide variety of different backgrounds with very different learning experiences. Within the design of the programmes, we aim to incorporate time for you to reflect on your learning.

You are taught throughout the programme by highly research-active staff who are able to ensure that you learn about current research in their discipline. In the final year project, many of you will be involved in cutting-edge Chemistry or Cosmetic Science research projects and become an integral part of the different research groups within the department.

We use pedagogies appropriate to the discipline with a student-centred learning paradigm. This means that our main role is to guide and facilitate your learning and provide relevant learning opportunities. You will be expected to be an active learner and contribute to the learning process, building knowledge and understanding in response to opportunities provided. You will develop your existing chemistry knowledge in order to achieve deeper levels of understanding, allowing you to analyse, evaluate and synthesize ideas. Our teaching is informed by the concept of constructive alignment, ensuring that the components of the teaching system are aligned to each other.

Elements of your programme will be delivered via digital technology.

The scheduled teaching and learning activity hours and amount of technology enhanced learning activity for your programme will depend upon your module combination. In addition, you will undertake some self-scheduled teaching and learning activities, designed by and/or involving staff, which give some flexibility for you to choose when to complete them. You will also be expected to undertake guided independent study. Information about

module study hours including contact hours and the amount of independent study which a student is normally expected to undertake for a module is indicated in the relevant module description.

Accreditation details

The Royal Society of Chemistry

Assessment

The programme will be assessed through a combination of written examinations, coursework (including class tests) and oral examinations. Further information is contained in the individual module descriptions.

Progression

Part 1
To achieve a threshold performance at Part 1, a student will normally be required to:
(i) Obtain an overall weighted average of 40% over 120 credits taken in Part 1;
(ii) Obtain a mark of at least 40% in individual modules amounting to not less than 80 credits taken in Part 1; and
(iii) Obtain marks of at least 30% in modules amounting to 120 credits. (A Fail in a Pass/Fail module will be treated as not meeting the minimum threshold requirement for progression or classification. Pass/fail modules are excluded from weighted average calculations but must be passed to avoid failure of the Part or degree.)

In order to progress from Part 1 to Part 2, a student shall normally be required to achieve a threshold performance at Part 1 and:

(iv) achieve a module mark of at least 40% in CH1PR1, and

(v) meet the required laboratory and classroom-based practical attendance in CH1PR1 (85%)

The achievement of a threshold performance at Part 1 qualifies a student for a Certificate of Higher Education if they leave the University before completing the subsequent Part.

Students who meet threshold requirements but who do not meet the accredited programme-specific requirements may transfer to Part 2 of the BSc Chemical Sciences programme.

Students are able to transfer from a Joint or Major/Minor Honours programme to a Single Honours programme in one of their joint subject areas at the end of Part 1, subject to:

- Meeting the University Threshold Standard at the end of Part 1; and
- Achieving marks of at least 40% in at least 40 credits of modules (e.g., 2 x 20 credit modules) in the subject to which they wish to transfer; and
- Meeting any programme-specific progression rules for the Part 1 Single Honours Programme to which they wish to transfer.

NB Students taking a Major/Minor programme may only transfer to a Single Honours programme in the Major subject and must meet the above requirements.

Students should seek advice about the titles of programmes they may be eligible to transfer to.

Students who transfer from a Joint or Major/Minor Honours programme to a Single Honours programme may not have taken all of the Part 1 modules listed in the Single Honours Programme Specification. The modules which they have taken will be shown on their Diploma Supplement.

Part 2
To achieve a threshold performance at Part 2, a student shall normally be required to:

(i) Obtain a weighted average of 40% over 120 credits taken in Part 2; and
(ii) Obtain marks of at least 40% in individual modules amounting to at least 80 credits taken in Part 2; and
(iii) Obtain marks of at least 30% in individual modules amounting to at least 120 credits. (A Fail in a Pass/Fail module will be treated as not meeting the minimum threshold requirement for progression or classification. Pass/fail modules are excluded from weighted average calculations but must be passed to avoid failure of the Part or degree.)

In order to progress from Part 2 to Part 3, a student must achieve a threshold performance and;

(iv) achieve a module mark of at least 40% in CH2PR1, and

(v) meet the required laboratory and classroom-based practical attendance in CH2PR1 (85%)

The achievement of a threshold performance at Part 2 qualifies a student for a Diploma of Higher Education if they leave the University before completing the subsequent Part.

Students who meet threshold requirements but who do not meet the accredited programme-specific requirements may transfer to Part 3 of the BSc Chemical Sciences programme.

Professional/placement year

Students are required to pass the professional placement year/study abroad year in order to progress on the programme which incorporates the professional placement year/study abroad year. Students who fail the professional placement year/study abroad year transfer to the non-placement year version of the programme.

Classification

Bachelors' degrees
The University's honours classification scheme is based on the following:

Mark Interpretation
70% - 100% First class
60% - 69% Upper Second class
50% - 59% Lower Second class
40% - 49% Third class
35% - 39% Below Honours Standard
0% - 34% Fail

Three year programmes:
Part 2: one-third
Part 3: two-thirds

Four year programmes, including professional/work placement or study abroad:
Part 2: one-third
Placement/Study abroad: not included in the classification
Part 3: two-thirds

Details of the classification method is given in detail in the Assessment Handbook under:

- Section 17: Awards (Bachelor's), or
- Section 18: Awards (Integrated Master's programmes). Students who do not progress to Part 4 of the Integrated Master's will normally be subject to the method detailed under Section 17: Awards (Bachelor's)

Please note that there may be a specific version of the above for your year of entry.

Additional costs of the programme

During your programme of study you will incur some additional costs. For textbooks and similar learning resources, we recommend that you budget between £50 to £150 per year. The core textbook(s), which most students normally purchase, cost(s) £65 new, and there may be other books/resources which you would find it convenient to buy. The core chemistry textbook is available in e-book format from the University library. Some books may be available second-hand, which will reduce costs. A range of resources to support your curriculum, including textbooks and electronic resources, are available through the library. Reading lists and module specific costs are listed on the individual module descriptions. Printing and photocopying facilities are available on campus at a cost of £0.05 per page. Costs will be, on average, £10 per year. As Chemistry is a practical subject, you will be provided with the relevant personal protective equipment during your course (laboratory coat and safety glasses).

Costs are indicative and may vary according to optional modules chosen and are subject to inflation and other price fluctuations. Estimates were calculated in 2026.

Students may consider purchasing a laptop to help support their learning. Information on recommended device specifications can be found on the DTS Student Hub.

For further information about your Programme please refer to the Programme Handbook and the relevant module descriptions, which are available at http://www.reading.ac.uk/module/. The Programme Handbook and the relevant module descriptions do not form part of your Terms and Conditions with the University of Reading.

BSc Chemistry with Cosmetic Science for students entering Part 1 in session 2026/27

25 August 2026

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