

Core 1: Fundamentals of Chemistry - CHE00015C

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- **Department:** Chemistry
- **Module co-ordinator:** Dr. Meghan Halse
- **Credit value:** 30 credits
- **Credit level:** C
- **Academic year of delivery:** 2020-21
 - See module specification for other years: [2018-19](#) [2019-20](#)

Module will run

Occurrence

A

Teaching cycle

Autumn Term 2020-21

Module aims

The purpose of this module is to introduce students to key concepts in chemistry through a blend of lectures, tutorials and workshops. In particular, this module will help students make the transition from their A-level studies to university-level study, and will make sure that all students have a firm foundation in these fundamental topics, which will underpin much of their future work at degree level.

Module learning outcomes

At the end of this module students will have

- developed an understanding of core chemical principles of analysis, organic inorganic and physical chemistry.
- developed written and verbal communication skills in small group tutorials and workshops.
- applied the principles taught in the module to solve unseen problems in small group tutorials and workshops.

Module content

Module content:

- Welcome from HoD and Year 1 Leader (1 lecture)
- College Introduction (1 informal session)
- Introduction to Chemistry (DKS, 1 lecture)
- Acids, Bases and Hydrogen (DWB, 5 lectures, college tutorial)
- First Law of Thermodynamics (DAW/TJD, 10 lectures, college tutorial)
- Separations Science and Mass Spectrometry (NJW, 7 lectures, central workshop; assessed by workshop)
- Organic Reactions and Mechanisms (DKS, 7 lectures, college tutorial)
- Atomic Structure & Introduction to Quantum Theory (AJK, 7 lectures, college tutorial)

- Structure and Bonding (JML, 7 lectures, college workshop)
- Stereochemistry (GAH, 6 lectures, college workshop)

The module is assessed by a combination of continuous assessment (Separations Science and Mass Spectrometry), and closed examination covering all remaining lecture courses consisting of written answers.

Assessment

Task	Length	% of module mark
24 hour open exam Core 1: Fundamentals of Chemistry	N/A	85
Essay/coursework Assessed Workshop	2 hours	15

Special assessment rules

None

Additional assessment information

Assessed workshop on Separations Science and Mass Spectrometry. Friday Week 9.

Closed exam. The following courses will be examined in the closed exam: Acids, Bases and Hydrogen: First Law of Thermodynamics: Organic Reactions and Mechanisms: Atomic Structure & Introduction to Quantum Theory: Structure and Bonding: Stereochemistry. Answer all questions.

Reassessment

Task	Length	% of module mark
24 hour open exam Core 1: Fundamentals of Chemistry	N/A	85
Essay/coursework Assessed Workshop	2 hours	15

Module feedback

Students will receive feedback on their performance in the assessed workshop assessment. They will receive verbal feedback on their progress in the formative tutorials and workshops, which support lectures, either in the session or within one week. The closed examinations are marked and returned within 5 weeks with mark slips (with per-question break-down) being returned to students via supervisors along with the marked scripts. Outline answers are made available via the Chemistry web pages when the students receive their marks, so that they can assess their own detailed progress/achievement. The examiners reports for each question are made available to the students via the Chemistry web pages.

Indicative reading

Burrows, Parsons, Price, Holman and Pilling, "Chemistry3 : Introducing Inorganic, Organic and Physical Chemistry" (Oxford University Press)

The information on this page is indicative of the module that is currently on offer. The University is constantly exploring ways to enhance and improve its degree programmes and therefore reserves the right to make variations to the content and method of delivery of modules, and to discontinue modules, if such action is reasonably considered to be necessary by the University. Where appropriate, the University will notify and consult with affected students in advance about any changes that are required in line with the University's policy on the [Approval of Modifications to Existing Taught Programmes of Study](#).

Coronavirus (COVID-19): changes to courses

The 2020/21 academic year will start in September. We aim to deliver as much face-to-face teaching as we can, supported by high quality online alternatives where we must.

Find details of the measures we're planning to protect our community.

[Course changes for new students](#)