

EXPLORING BIOCHEMISTRY - 2024/5

Module code: BMS1052

Module Overview

Biochemistry is a broad field of study. This module aims to begin the students on a journey to facilitate the communication and passion for their subject, enabling them to develop and refine communication skills for further study. The students will be divided into groups, each assigned a mentor from the teaching team. The mentor will introduce the students to several different aspects of biochemistry and provide some insights into the opportunities a career in biochemistry and provide support and guidance throughout.

Module provider

School of Biosciences

Module Leader

LYMPANY Penny (Biosciences)

Number of Credits: 15

ECTS Credits: 7.5

Framework: FHEQ Level 4

Module cap (Maximum number of students): N/A

Overall student workload

Independent Learning Hours: 106

Lecture Hours: 9

Tutorial Hours: 20

Guided Learning: 6

Captured Content: 9

Module Availability

Semester 1

Prerequisites / Co-requisites

None

Module content

The learning and teaching strategy is designed to:

Deliver students a broad introduction to some areas within the field of biochemistry, engage students with group-based project work to develop literature handling, writing and verbal communication skills.

The learning and teaching methods include: lectures, small group workshops, drop-in sessions and a presentation day.

Furthermore, the learning and teaching strategy is designed to develop students’ confidence and competence in working with others, leadership, employability, professionalism and communication skills. In the tutorials students will perform interactive tasks in their groups to develop their research and referencing skills, they will be able to share and consider each other’s views on appropriate reliable source material; developing their critical analysis skills. Furthermore, they have to choose an area of Biochemistry for the focus of their poster presentation. This needs to be of interest to the whole group. Students will be encouraged to share and discuss their opinions and research they have prepared, as well as listen and discuss other’s views. They will work together to prepare a group poster presentation, that is professionally produced, exhibiting the referencing and writing skills developed in workshops. Finally, they will produce an individual reflection which considers how they and the group worked and present areas for improvement.

Assessment pattern

Assessment type	Unit of assessment	Weighting
Coursework	REFLECTIVE PEER AND SELF ASSESSMENT	40
Oral exam or presentation	GROUP PRESENTATION	60

Alternative Assessment

Alternative assessment for 'group presentation' is a 'Oral presentation'

Assessment Strategy

The assessment strategy is designed to provide students with the opportunity to demonstrate:

Their ability to evaluate and summarise scientific information and to communicate the information to an audience of their peers.

Their ability to reflect on their own performance and that of their group and propose areas of actionable improvement.

Thus, the summative assessment for this module consists of:

- Presentation of a group poster to peers and academic staff. 60% of module weighting. Assessing learning outcomes 1-5.
- Individual group- and self-reflection on performance and learning. 40% of module weighting. Assessing learning outcomes 1-5.

Formative assessment

Continuous development and challenging during group tutorials. Peer and supervisor feedback on practice presentation a week prior to the presentation.

Feedback

During and outside tutorials students will be able to seek support and ask questions from their academic supervisor. This will lead to a continuous feed of feedback. From asking for support in interpreting a tricky mechanism, to what is the appropriate size font for the poster, to support with group dynamics.

Module aims

- • Provide an opportunity for students to explore areas of biochemistry which are of interest to them
- • Provide students some insight and perspective on employability and skills required for enhancing employability
- • To enhance and develop students communication skills and introduce the students to the idea of communicating different concepts

Learning outcomes

		Attributes Developed
001	• Evaluate and summarise scientific information	C
002	• Identify, evaluate and critique sources of scientific information	K
003	• Decide and implement the most effective way to present different types of scientific information	P
004	• Coordinate and cooperate with other group members to complete tasks equitably and to a deadline determined by the whole group	P
005	To evaluate the impact of the research topic on biodiversity and sustainability	KCPT

Attributes Developed

C - Cognitive/analytical

K - Subject knowledge

T - Transferable skills

P - Professional/Practical skills

Methods of Teaching / Learning

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Indicated Lecture Hours (which may also include seminars, tutorials, workshops and other contact time) are approximate and may include in-class tests where one or more of these are an assessment on the module. In-class tests are scheduled/organised separately to taught content and will be published on to student personal timetables, where they apply to taken modules, as soon as they are finalised by central administration. This will usually be after the initial publication of the teaching timetable for the relevant semester.

Reading list

<https://readinglists.surrey.ac.uk>

Upon accessing the reading list, please search for the module using the module code: **BMS1052**

Other information

Resourcefulness and resilience

Students work in groups to produce a scientific poster within a theme of Biochemistry with an academic supervisor. They conduct their research both individually and as a group. They will discuss, analyse and critique both their own research and that of their group as well as supervisor input.

Global and cultural capabilities

Students choose a topic within their theme, previous examples of where global issues have been explored include malaria, sickle cell, the issue of booster vaccines, toxins from snakes etc. Students work in small groups, and the value of different abilities, perspectives and cultures is emphasised during the module. Everyone is encouraged to participate to class and group discussions.

Sustainability

One of the learning outcomes is to evaluate the impact of their research area on biodiversity and sustainability. Some topics have sustainability at their core previous examples include the 3Rs and booster vaccine delivery.

Digital capabilities

Students are introduced to the use of specific search engines to find scientific material and how to cite using citation manager software. The poster produced is typically produced in Powerpoint and presented digitally. Students are also encouraged to digitally produce their own figures using appropriate tools such as Powerpoint or software such as Biorender.

Employability

This module was designed to give students insight into the diverse and spiraling areas Biochemists can work in. Under the broad area of their supervisor students decide on a specialist topic which interests the group as a whole. As well as gaining a deep understanding of their specialist topic they also listen to the poster presentations of the other groups, so are exposed to a broad area of potential career destinations.

The module also works on key employability skills – communication (including public speaking), group-working, leadership and professionalism.

Programmes this module appears in

Programme	Semester	Classification	Qualifying conditions
Biochemistry BSc (Hons)	1	Compulsory	A weighted aggregate mark of 40% is required to pass the module
Biochemistry MSci (Hons)	1	Compulsory	A weighted aggregate mark of 40% is required to pass the module

Please note that the information detailed within this record is accurate at the time of publishing and may be subject to change. This record contains information for the most up to date version of the programme / module for the 2024/5 academic year.