

# Introduction to Life Sciences

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## We're delighted you're thinking about studying at Brunel University London.

Our lecturers have put together the following information to help you prepare for your course. This will give you a snapshot of the materials and reading list you'll be using. You'll get a full breakdown of information before you enrol.

On our website you can also [find out more about your modules](#) and [chat to a current student](#).

If you have any more questions, [please get in touch](#).

We look forward to welcoming you to Brunel.

### Reading list

- **Biochemistry:** Biochemistry: Jeremy M. Berg, Lubert Stryer, John Tymoczko, Gregory Gatto
- **Molecular and Cellular Biology:** Molecular Biology of the Cell, Bruce Alberts, Alexander D. Johnson, Julian Lewis, David Morgan, Martin Raff, Keith Roberts and Peter Walter. Garland Scientific.
- **Anatomy and Physiology** VanPutte, C. L., Regan, J. L., Russo, A. F., Seeley, R. R., Stephens, T. D., & Tate, P. (2020). Seeley's anatomy & physiology (12th Edition). New York, NY: McGraw-Hill Education.
- **Cognitive Psychology:** Ward, J. (2015). The Student's Guide to Cognitive Neuroscience (3rd edition). Hove: Psychology Press.
- **Biosphere and Ecology:** Textbook: Cresser, M. et al. (2012). Introduction to Environmental Science: Earth and Man. Pearson. ISBN-10: 9780131789326

### Sample lecture/coursework questions

1. **Biochemistry:** How is energy produced in the cell? What are genes and how is the genetic information translated to different proteins?
2. **Molecular and Cellular Biology:** How do bacteria and viruses affect human health? Describe the life cycle of bacteria and viruses.
3. **Physiology:** Describe the cardiac cycle and the relationship among the contraction of each of the chambers, the opening and closing of valves, the pressure in each of the chambers, the phases of the electrocardiogram, and the heart sounds.
4. **Psychology:** Summarise and assess key experimental findings and theories within the five principal areas of cognitive psychology: attention, perception, memory, language, and cognitive control.
5. **Biosphere and Ecology:** Explain how evolution by natural selection influences ecosystems.



## Synoptic assessments in Life Sciences

The Life Sciences BSc is explicitly interdisciplinary and your learning is deepened when you reflect on the connections between different disciplines. Synoptic assessments require drawing on different elements of learning to show accumulated knowledge, breadth and depth of understanding, as well as the ability to integrate and apply learning. Every year in the Life Sciences BSc there is synoptic work to ensure you see the links between the different areas of your studies and an interdisciplinary education. In the first year your synoptic study will involve learning about aspects of the work done by the UK Biobank, you can find out more in this [YouTube video](#)

Explore Brunel at our open days.  
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