

---

**BS2013    Physiology and Pharmacology**


---

**Academic Year:** 2021/2  
**Module Level:** Year 2  
**Scheme:** UG  
**Department:** Biological Sciences  
**Credits:** 15

**Student Workload (hours)**

Synchronous Lectures	
Synchronous Small Group Teaching	5
Synchronous Practical Classes/ Workshops/Professional Placements	2
Synchronous Other	8
Asynchronous Lectures/Presentations	20
Asynchronous Other	2
Guided Independent Study	113
<b>Total Module Hours</b>	<b>150</b>

**Period:** Semester 1  
**Occurrence:** E  
**Coordinator:** Martyn Mahaut-Smith  
**Mark Scheme:** UG Module Mark Scheme

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Lab practical reports	40				
002	End of Module Assessment	60		3		

**Intended Learning Outcomes**

On successful completion of the module, students should be able to:

- Describe the basic structure of the various classes of cell surface receptors, explain the intracellular signalling pathways regulated by such receptors, provide examples of receptors that possess multiple subtypes for a given hormone or neurotransmitter (agonist).
- Undertake a quantitative analysis of drug-receptor interactions and interpret the information; describe how drugs can modify agonist-receptor interactions and be able to quantify these effects.
- Discuss the mechanisms by which drugs can modify the function of the cardiovascular system to treat disease states such as hypertension.
- Plan experiments and generate data via a computer-based simulation package in order to address the sites and mechanisms of drug action.
- Handle, graph, manipulate, tabulate and analyse pharmacological data derived from experiments.
- Demonstrate a range of transferable skills including written communication, information technology, numeracy, team working, problem solving, examination technique, information handling.

**Teaching and Learning Methods**

Asynchronous: understanding concepts and analytical/presentation skills

Synchronous: theory and concepts, analysis and presentation of data

Directed reading

**Assessment Methods**

Practical assignments

End of module assessment

**Pre-Requisites**
**Co-Requisites**
**Excluded Combinations**
**Guided Independent Study: Indicative Activities**

Reviewing material reviewed in asynchronous sessions, undertaking guided activities in preparation for synchronous sessions. Preparation and generation of material for practical assignments. Reading literature relevant to these topics to gain further insight into the module content.