



University of Central Lancashire

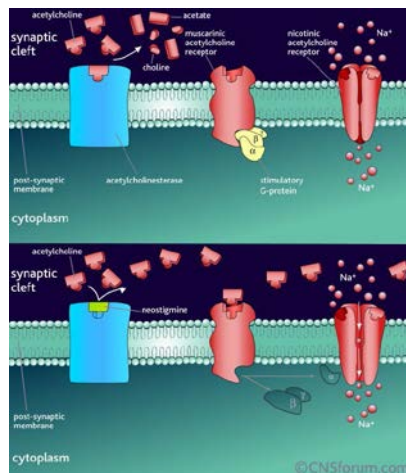
Course Handbook

BSc (Hons) Physiology and Pharmacology

2019/20

Dr Anthony Ashton

School of Pharmacy and Biomedical Sciences



Please read this Handbook in conjunction with the University's Student Handbook.

All course materials, including lecture notes and other additional materials related to your course and provided to you, whether electronically or in hard copy, as part of your study, are the property of (or licensed to) UCLan and MUST not be distributed, sold, published, made available to others or copied other than for your personal study use unless you have gained written permission to do so from the Dean of School. This applies to the materials in their entirety and to any part of the materials.

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1. Welcome to the course

Welcome to the School of Pharmacy and Biomedical Sciences at the University of Central Lancashire. This is located within the Faculty of Clinical and Biomedical Sciences. We hope that you'll enjoy your studies and experiences in Preston. The Student Handbook brings together information to help you to answer queries that you might have about the course. If we have missed something that you think should be included in this Handbook then please let us know.

We want this to be a positive learning experience for you. There will be some very hard work, but we hope that you'll find it interesting and stimulating, and that you'll have the chance to enjoy yourself along the way. We believe you can succeed, and we want you to succeed. The academic and support staff are here to help you achieve that goal. Good luck!



1.1 Rationale, aims and learning outcomes of the course

Your course brings together the disciplines of physiology and pharmacology along with the relevant aspects, of other sciences such as biochemistry, microbiology and molecular biology. By taking an integrative approach this course will enable you to gain a detailed understanding of the processes involved in how the body works in health and in disease and the mechanisms through which drugs act to 'restore' systems to enable the body to function more effectively. We think this is a fascinating area in which to study and will produce sought-after graduates.

1.1.1 Course aims:

- To develop a knowledge and understanding of physiology and pharmacology based on a scientific foundation, with the ability to apply knowledge and analyse and evaluate information.
- To instil an understanding of the importance of the study of physiology and pharmacology and how it can be applied in different contexts.
- To involve the learner in a stimulating learning environment in which students are encouraged to achieve personal growth in terms of a wide range of skills including communication, numeracy, IT, independence, interpersonal and group- working skills.
- To develop competence in the definition, implementation and monitoring of plans for self-development.
- To prepare the learner for a career in physiology and pharmacology or in positions requiring knowledge of physiology and pharmacology.

1.1.2 Learning outcomes (these are the things that you should be able to do at the end of the course)

In the category of knowledge and understanding, you should:

- Be able to explain and critically discuss the basic principles of physiological and pharmacological investigations (along with associated areas of biochemistry molecular biology and microbiology) and the underpinning science behind them. This will include some elements of study where there are conflicting opinions and the current information available can only lead to postulated explanations due to the limits of our knowledge.
- Be able to determine an appropriate method to analyse data that will be produced from various types of biological study and be able to apply such tests.
- Be able to apply theory/knowledge to new situations, including the formulation of a hypothesis, the design of experiments and the application of knowledge to new contexts in the biological sciences.
- Be able to determine an appropriate statistical test to analyse data that will be produced from various types of study and be able to apply these tests.

In the category of subject specific skills, you should:

- Be able to apply specialist knowledge of physiology and pharmacology to new situations e.g. by knowing the normal physiology of a system being able to theorise on the effect of a defined abnormality.
- Be able to understand the pharmacology and physiology of various tissues/organs such that one could propose the use of specific pharmacological agents to regulate the physiological properties of various tissues/organs.
- Be able to make use of appropriate laboratory equipment to enable a biological study to be undertaken.
- Be able to work accurately, in an organised manner, observing appropriate safety precautions over a range of biological methods associated with physiological and pharmacological investigations.
- Be able to discuss the safety aspects to be considered when undertaking laboratory based investigations and to work safely within a laboratory environment.
- Be able to manipulate a range of physiological/pharmacologically based data to present them in the most appropriate format and interpret the findings from such data.

In the category of thinking skills, you should:

Be able to locate and appraise critically relevant published literature and extract pertinent information from such sources.

- Be able to define and develop strategies for solving problems

- Be able to analyse a range of data derived experimentally, or sources from the literature or databanks, and evaluate it critically with the support of a logical and structured argument.

In the category of other skills relevant to employability and personal development, you should:

- Be able to write using an appropriate scientific style.
- Be able to work as a useful contributor to a group or independently.
- Be able to use IT effectively for information retrieval, analysis, communication and presentation.
- Be able to communicate effectively to transmit ideas and conclusions.
- Be able to demonstrate planning, time-management, work to deadlines; carry out independent learning and to undertake career planning and development

1.2 Course Team

NAME	EMAIL ADDRESS	ROOM No	Ext. No	ROLE	EXPERTISE
Pete Abel	pabel@uclan.ac.uk	MB107a	5828		haematology
Jane Alder	jealder@uclan.ac.uk	MB006	3915		pharmacology
Tony Ashton	acashton@uclan.ac.uk	MB137	3509	Course leader	Cell biology/ pharmacology/neuroscience
Victorio Bambini	Vbambini-junior@uclan.ac.uk	MB241	6483	Year 2 tutor	Neuroscience/pharmacology/ immunology
Steve Beeton	sbeeton@uclan.ac.uk	MB032	3592		microbiology
Vassillios Beglopoulos		MB138			pharmacology/neuroscience
Darrell Brooks	dbrooks@uclan.ac.uk	MB027	3919	Year 1 tutor	physiology
Elaine Court	encourt@uclan.ac.uk	MB136	3591		pharmacology
Donna Daly	Ddaly3@uclan.ac.uk	MB024	6480		physiology
Colin Davidson	CDavidson2@uclan.ac.uk	MB068	3920		pharmacology
Maria Gonzalez	Mgonzalez3@uclan.ac.uk	MB137	3503		pharmacology
Dave Griffiths	Dmgriffiths2@uclan.ac.uk	MB107a	5830		Cellular pathology
Vicky Jones	vcjones@uclan.ac.uk	MB139	5833	Year 3 tutor	Molecular and cell biology
Marta Krysmann	Mkrysmann@uclan.ac.uk	MB140	3502		Chemistry
Clare Lawrence	cllawrence@uclan.ac.uk	MB064	5809		Molecular and cell biology

Frank Martin	flmartin@uclan.ac.uk	MB070	6482		Cell biology and physiology
Lorenzo More		MB240			pharmacology/neuroscience
Milos Petrovic	mpetrovic@uclan.ac.uk	MB140	5846		Cell biology/ pharmacology/neuroscience
MaryPhillips-Jones	MPhillips- Jones@uclan.ac.uk	MB026	5831		Molecular biology/microbiology
Lisa Shaw	lshaw1@uclan.ac.uk	MB241	5829		Cell biology/immunology
Leroy Shervington	lashervington@uclan.ac.uk	MB027	3519		chemistry
Chris Smith	cgssmith@uclan.ac.uk	MB139	5845		pharmacology
Tim Snape	tjsnape@uclan.ac.uk	MB065	5805		chemistry
Izobella Stasik	lstasik@uclan.ac.uk	MB107a	6484		Cell biology
Gail Welsby	gwelsby@uclan.ac.uk	MB107a	3501		Cell biology and pharmacology
Philip Welsby	pjwelsby@uclan.ac.uk	MB241	5823		Cell biology/ pharmacology/neuroscience
Admin services					
Foster Hub	FosterHub@uclan.ac.uk	FB058			General Enquiries
Foster Hub	FosterHubattendance@uclan.ac.uk	FB058			Notification of Absence
Foster Hub	PBSExtensions@uclan.ac.uk	FB058			Extension Requests
Foster Hub	FosterEC@uclan.ac.uk	FB058			Extenuating Circumstances

1.3 Expertise of staff

The expertise of all the staff are outlined in the table above. Each one of these staff is carrying out fundamental research in their chosen field. This expertise is applied in both the laboratory classes and in particular in the final year modules and in the research projects. All students should be taught by these staff during their time at UClan. The specific research topics that these staff work on can be found in the specific web pages for each member of staff.

1.4 Academic Advisor

You will be assigned an Academic Advisor who will provide additional academic support during the year. They will be the first point of call for many of the questions that you might have during the year. Your Academic Advisor will be able to help you with personal development, including developing skills in self-awareness, reflection and action planning.



1.5 Administration details

Course Administration Service provides academic administration support for students and staff and are located in the Foster Hub which opens from 8.45am until 5.15pm Monday to Thursday and until 4.00pm on Fridays. The hub can provide general assistance and advice regarding specific processes such as extenuating circumstances, extensions and appeals.

Foster Building

Forensic and Applied Sciences
Pharmacy and Biomedical Sciences
Psychology
Physical Sciences
telephone: 01772 891990/891991
email: FosterHub@uclan.ac.uk

Allen Building

Medicine
Dentistry
telephone: 01772 895566
email: AllenHub@uclan.ac.uk

Harris Building

Lancashire Law School
Humanities and the Social Sciences
Centre for Excellence in Learning and Teaching
telephone: 01772 891996/891997
email: HarrisHub@uclan.ac.uk

Computing and Technology Building

Art, Design and Fashion
Computing
Journalism, Media and Performance
Engineering
telephone: 01772 891994/891995
email: CandTHub@uclan.ac.uk

Greenbank Building

Sport and Wellbeing
Management
Business
telephone: 01772 891992/891993
email: GreenbankHub@uclan.ac.uk

Brook Building

Community, Health and Midwifery
Nursing
Health Sciences
Social Work, Care and Community
telephone: 01772 891992/891993
email: BrookHub@uclan.ac.uk

1.6 Communication



The University expects you to use your UCLan email address and check regularly for messages from staff. If you send us email messages from other addresses they risk being filtered out as potential spam and discarded unread.

Good communication is a core principle within the School of Pharmacy and Biomedical Sciences, and it is important that this underpins relationships between students and members of staff. The School has adopted principles to guide students when communicating with staff members to achieve the most effective outcomes.

1.6.1 General points

- It is important to remember that academic staff are involved in a range of activities, including teaching across a number of different courses; attending placement visits, attending meetings inside and outside the University; and carrying out scientific research. Consequently, although student emails and telephone messages are afforded a high level of priority, responses are unlikely to be instant, as staff are often not at their desk. Staff will normally try to respond to you within 48 hours, but please remember we have some part-time staff and so this may not always be possible.
- The School has a large and diverse student body with a range of different needs. At times, some student's needs are particularly pressing. In such instances, staff will prioritise responding to those students, as in any other workplace.
- School staff are committed to supporting students with their studies; however there is also an emphasis upon independent learning within the Higher Education environment. Where students run into difficulty, they are strongly encouraged to seek help from their Academic Advisor in the first instance.
- Academic and Administrative staff are not permitted to give out grades via email or on the telephone, as stated in the Academic regulations. Students can access their results via 'MyUCLan' and/or Blackboard.

Administrative staff will always do their best to help students. Students are asked to communicate with courtesy at all times. There is normally a member of administrative staff in the Foster Hub from 8.45am-5.15pm Monday to Thursday and 8.45am-4pm on Fridays.

- Communication is a two way process and it is important that students and staff work together to constantly improve communication, so that it is mutually beneficial. This will be discussed at Staff/Student liaison meetings with feedback sought from all.

1.6.2 E-mails

- Students should take care to use appropriate language in emails and are reminded of the importance of being courteous at all times. Where inappropriate language is used, for example 'text language', members of staff will politely point this out to students.
- Where staff are away from University, they will routinely use their automated email response facility, which clearly states a return date. This is important for students so that they understand when staff are on leave or working away from the University.
- Staff will normally try to respond to emails from students within 2 working days (unless

they are on annual leave or are part-time teaching staff), by providing an acknowledgement of the email, even if the matter cannot immediately be resolved. However, students are politely reminded that the answer to very many queries lies in module or Student handbooks and they should consult these first to try and find an answer. This helps to ensure that students who are in genuine need of assistance will receive a prompt response.

- If students do not get a response in a timely manner, they should email the member of staff again. If there is still no response and the matter remains unresolved, students should bring this to the attention of another member of staff, such as their course leader, or head of School for an 'action request'. This colleague will then address the matter with the original member of staff.
- CC-ing in emails - Students are encouraged to send emails directly to the person from whom they want a response. Students should avoid needless copying in many staff members, as this decreases the likelihood of an efficient response and increases work for academic staff. Where other staff are cc'd into the email, it should be made clear why. eg. *I am copying in my course leader so that they are also aware of this situation.*

1.6.3 Appointments

- Tutors will make it clear how students can make an appointment with them. Many tutors publish drop in times on their doors or have contact details posted on their doors. If you wish to request an appointment with a member of staff, it is usually best to either sign up on the sheet provided on the office door or email them to request a time, clearly stating what the matter is about.
- Students will be helped to understand the different roles of staff during induction. For example, all students will have an Academic Advisor who is normally the first port of call for personal issues, and advice and guidance about progression on the course. If students need advice on module specific matters, eg resubmission of essays, they should consult module staff, not their Academic Advisor. Module leaders will publish dates of assignment workshops (where these are given) for all students at the beginning of the semester. The course leader can help on course related issues whereas the year tutor may be able to help as regards specific issues with a particular year of the degree course.
- When students have appointments with staff, it is very important that they keep them. Where they are unable to keep them, students must let the member of staff know, out of courtesy, but also to ensure staff can manage their workload.

1.6.4 Feedback

- Feedback from teaching staff is central to the progression and development of any student. This needs to be recognised and valued as a form of communication. It is extremely important for students to take their time to understand the feedback they have received. Please seek clarification from a member of staff if you do not understand any aspect of the feedback that has been provided.

1.7 External Examiner

The University has appointed an External Examiner to your course who helps to ensure that the standards of your course are comparable to those provided at other higher education institutions in the UK. The name of this person, their position and home institution can be found below. If you wish to make contact with your External Examiner, you should do this through your Course Leader and not directly. External Examiner reports will be made available to you electronically. The School will also send a sample of student coursework to the external examiner(s) for external moderation purposes, once it has been marked and internally moderated by the course tutors. The sample will include work awarded the highest and lowest marks and awarded marks in the middle range.

External Examiner Name : Professor Yuri Ushkaryov

Position: Professor. Head of Receptors and Exocytosis Unit | Director of MSc in Applied Drug Discovery Programme

Home institution: Medway School of Pharmacy, Universities of Greenwich and Kent at Medway

When the external examiner's report for the previous year is available it will be put onto the course site on Blackboard so that you can read it.



2. Structure of the course

Full time Provision

BSc (Hons) Physiology and Pharmacology

BSc Physiology and Pharmacology Diploma of
Higher Education (DipHE) Certificate of Higher
Education (CertHE)

Transferring to other Programmes

Occasionally it is the case that students who begin on one programme of study realise that they would prefer to specialise in a different area. The first year of this programme is largely common with the modules required for the Biomedical Science programme within the School. Thus with the agreement of the Course Leaders, following successful completion of the first year of the Physiology and Pharmacology course, there can be the possibility for you to transfer into the second year of the Biomedical Science at the start of your second year of full-time study. If you are considering changing your programme of study, it is important that you seek advice from your Academic Advisor.

Foundation year entry

Students doing a foundation year at UCLan on a relevant course can enter into the first year of the degree programme providing they obtain the relevant % marks in their foundation year.

Foundation degree

Students studying a Foundation degree at a partner college (e.g. Burnley campus) can study the first year at this institute and then transfer to the second year at the Preston campus.

2.1 Overall structure

The module codes, titles and sizes are indicated in Table 1, whilst the order in which these modules fit into the scheme of the degree programme is illustrated in Section 2.2.3

2.2 Modules available

Each module is a self-contained block of learning with defined aims, learning outcomes and assessment. A standard module is worth 20 credits. It equates to the learning activity expected from one sixth of a full-time undergraduate year. Modules may be developed as half or double modules with credit allocated up to a maximum of 120 credits per module.

The full list of options indicated may not all be delivered every year, and this may depend on how many students choose that particular option. When accepting your offer of a place to study on this course, you are accepting that not all of these options will be running. At (or before) the start of each year, you will have an opportunity to discuss your course and preferred options with your tutor. The University will do all it reasonably can to ensure that you are able to undertake your preferred options.

2.2.1 Electives available

There are no electives available on the Phys Pharm degree programme.

2.2.2 Accreditation of prior learning

If you consider that you may have already achieved some of the learning outcomes of the course through previous learning, please consult your course leader and gain advice from the APL Coordinator to find out whether you can make a claim for [accreditation of prior learning](#) for part of your course.

Table 1 A summary list of all the modules in the BSc (Hons) Physiology and Pharmacology degree course.

CODE	TITLE	CREDIT RATING
BL1011	Fundamentals of Biosciences	60
BL1012	Essentials skills in Biosciences	40
BL1013	Biosciences in Practice	20
BL2011	Bioscience Practical Skills	60
BL2013	Molecules to Cells	20
BL2016	Physiology and Pharmacology	40
BL2017	Placement (optional)	120

BL3011	Research Project	40
BL3019	Contemporary Topics in Physiology	30
BL3020	Molecular Neuropharmacology	30
BL3021	Drug Development	20

2.2.3 Scheme of the degree programme

Year 1 (level 4)

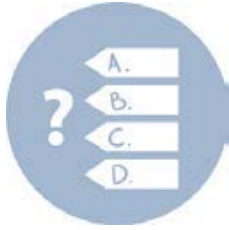
1 st semester	BL1011 Fundamentals of Biosciences	BL1012 Essentials skills in Biosciences	BL1013 Biosciences in Practice
2 nd semester	60 credits	20 credits	40 credits

Year 2 (level 5)

1 st semester	BL2011 Bioscience Practical Skills	BL2013 Molecules to Cells	BL2016 Physiology and Pharmacology
2 nd semester	60 credits	20 credits	40 credits

Year 3 (level 6)

1 st semester	BL3011 Research Project	BL3019 Contemporary Topics in Physiology	BL3020 Molecular Neuropharmacology	BL3021 Drug Development
2 nd semester	40 credits	30 credits	30 credits	20 credits



2.3 Course requirements

Modules will be received at the School Assessment Board at the end of the relevant semester.

Unless specifically stated in the module descriptors, you are expected to receive a pass mark of a minimum of 40% as an aggregate of coursework and examination components of any module employing a mix of these two

elements.

Students not achieving a passing module mark may be re-assessed in the deficient component(s).

2.4 Module Registration Options

Discussions about your progression through the course normally take place in February each year. It is an opportunity for you to make plans for your study over the next academic year. The course team will tell you about the various modules / combinations available and you will both agree on the most appropriate (and legal) course of study for you.

2.5 Study Time

2.5.1 Weekly timetable

A timetable will be available once you have enrolled on the programme, through the student portal.

2.5.2 Expected hours of study

Normally you will have face to face contact with a member of academic staff for 15-18 hours a week. This contact will be in the form of e.g. lectures, practicals, tutorials and workshops. The on-line timetable will have details of all the modules that you are taking in one particular academic year and can be accessed either on or off campus.

In addition, all modules have a Module Handbook and this will provide you with details of the assessment timetable. The Module Handbooks can be accessed via Blackboard [ELearn (Blackboard) portal] for each module.

The normal amount of work involved in achieving a successful outcome to your studies is to study for 10 hours per each credit you need to achieve – this includes attendance at UCLan and time spent in private study i.e. for a 20 credit module you are expected to spend a minimum of 200 hours on this.

Each module that you take as a part of your course has as a part of the module a learning agreement that sets out how the material in the module will be delivered and details of the various learning activities. Further details can be found on the individual module descriptors.



2.5.3 Attendance Requirements

You are required to attend all timetabled learning activities for each module. Notification of illness or exceptional requests for leave of absence must be made to:

the hub email

– FosterHubAttendance@uclan.ac.uk or by telephoning the hub on 01772 891990 or 01772 891991.

If you do not email to report your absence, the absence will be classed as unauthorised, unless appropriate documentary evidence (e.g. a medical note) is provided.

Please note that absence for reasons other than sickness must be discussed and agreed in advance with your Course Leader or Module Tutor because they would have to authorise any absence. If you do not do this your absence will be classed as unauthorised.

For any module where you have not attended sufficient classes because of illness or other cause, you will not be penalised, provided there is acceptable documentary evidence to support the absence(s). However, if there are a significant number of absences then it is unlikely that you will have met the learning outcomes for a module(s). In this case the module assessment board may give an 'I' for the current year and you will be required to re-take the modules(s) in entirety the following year. This means that any module(s) that are necessary to re-take will not be capped at the minimum pass grade.

Further details are provided in the booklet 'A Students Guide to Assessment' which you will be given a copy of and is available on Blackboard. Unauthorised absence is not acceptable and may attract academic penalties and/or other penalties.

Students who do not respond to communications concerning continuous unauthorised absence may be deemed to have withdrawn from the course. The date of withdrawal will be recorded as the last day of attendance.

Please note that in any cases of absence (authorised or otherwise) it is your responsibility to find out what material you have missed, and by negotiation with staff (and perhaps other students) to catch up with your general learning and especially the work required for assessments.

If you have not gained the required authorisation for leave of absence, do not respond to communications from the University and if you are absent for four weeks or more, you may be deemed to have withdrawn from the course. If this is the case, then the date of withdrawal will be recorded as the last day of attendance.

Each time you attend a timetabled session you will use a automatic monitoring system to register your attendance (SAM: student attendance monitoring) and this can be used to determine whether you have been attending your classes. This will involve the use of your university card which has the electronic information about yourself encoded on this. In some cases, signing in sheets will also be employed. The University has a responsibility to keep information up to date and **you must only enter your own details on the system**. To enter any other names (by using their University card or by signing for someone else) would result in inaccurate records and be dishonest. Any student who is found to make false entries can be disciplined under the student guide to regulations.

For students from overseas and non-EU countries it is very important that you understand your responsibilities after enrolling; these are broadly defined as follows:

1. You **MUST** keep UCLan informed of your contact details at all times; it is your responsibility to inform UCLan if your contact details change. If you do change your term time address and/or phone number please inform the Foster Hub.

2. You MUST attend your course of study regularly; under the Points Based System (PBS), UCLan is obliged to tell UKBA if students withdraw from a course, defer or suspend their studies, or if a student fails to attend their course regularly. If your studies are sponsored by a company or government agency we may have an obligation to provide them with information about your attendance and progression.
3. You MUST comply fully with the working conditions of your visa.
4. You MUST inform UCLan immediately of any change in your personal circumstances (eg. marriage/civil partnership/cohabitation/birth of a child in the UK; change in dependant circumstances; divorce; dissolution of civil partnership).

What are the penalties for not complying with the PBS?

Penalties for failing to comply with PBS will be implemented by UKBA and may be severe and long-lasting. Penalties may include your removal from the UK and/or your exclusion from the UK for a number of years.

3. Approaches to teaching and learning

3.1 Learning and teaching methods

All School courses require you to study 6 full modules (or an equivalent made up of various number of credits: you have to do 120 credits per year) in each of the three years of your course. Each full module is given a rating of "20 credits" and corresponds to approximately 200 hours (10 hours per credit) of learning time and related activities undertaken as a part of the engagement with each module. Module Learning Plans set out in detail how this time is broken down for each module.

You should note that you will need to pass all 18 modules (or 360 credits) in order to gain a BSc Honours degree though, under exceptional circumstances, the Assessment Board does have the discretion to condone a limited number of modules, which depends on the year of study.

Throughout your course individual pieces of coursework and examinations will be marked as percentages. At the end of each semester these marks will be used to generate overall module marks, which will appear on your profile and transcript. At the end of your course these module marks will be used to calculate an Average Percentage Mark or APM which will be used to determine your degree classification. More details on APM is provided in Section 6.1.

You should note that, whilst you must pass the first year in order to proceed to the second year of your course, the actual module marks do not count towards your overall degree classification. However, having said this, experience has shown us that students who do well in the first year have a strong foundation to go on and do perform well in subsequent years.

The School's strategy in all of its courses is to promote deep and active learning and to achieve an appropriate balance between the accumulation of subject specific knowledge, the understanding of subject-specific concepts, the application of these, and the development of generic skills. The overall strategy is for the development of transferable skills to be encouraged within all modules, with increased emphasis on independent and group work as you progress from Level 4 to Level 6. Personal development planning (PDP) and preparation for employment is encouraged throughout the course and via the Academic Advisor system, together with specific sessions related to career planning. More information is provided in Section 3.5.

The School encourages learning using a range of teaching methods to accommodate the range of preferred learning styles of the students.

Lectures are used to introduce you to new areas, define the scope of topics, communicate information, and explain concepts.

Tutorials are used to develop skills or encourage learning through the application of the concepts covered in lectures.

Seminars are used to develop communication skills, literature searching, and analysis and

evaluation.

Practical sessions are employed to provide demonstrations of theory and practice and to develop practical skills. You will frequently use 'state of the art' scientific equipment that is in regular use in a range of research laboratories as part of your practicals.

Group exercises are effective in developing a range of skills, including communication and working with others.

Problem-based learning is being used in an increasing number of modules to promote your active participation in determining what you need to learn.

The final-year project, undertaken by all students, is a substantial piece of work that encourages independence and self-management.

Blackboard is being used on all modules to provide a framework for the organisation of module materials, and to support your learning.

In line with the School ethos of developing you as an independent learner, at Level 4, practicals tend to be completely directed, whilst at Level 5, and particularly at Level 6, practical exercises may be more open-ended to allow the development of independence, group working and problem solving skills.

You will have an IT induction session during your first week. The University and other Schools offer a range of IT-based electives for you to develop these important skills, and the Library Helpdesk is able to offer personal support to resolve IT-related problems. Basic IT skills (word-processing, use of email, use of library databases and simple statistical analysis) are developed during Level 4 modules. Further development of IT skills at Level 5 takes place as described below. The School subscribes to a number of electronic journals, textbooks and on-line services, and you are encouraged to utilise these as part of your studies. Students are encouraged to use IT in a variety of ways including email communication and the accessing of important materials on the School's web site or Blackboard folder.

The School has developed a largely common set of first year modules for all "Bioscience" courses. This is a deliberate choice on our part since it allows us to ensure that all our students benefit from the available resources and it also allows students to transfer between bioscience courses at the end of the first year.

By the end of Level 4 you will have begun to develop an understanding of the key concepts relevant to Physiology & Pharmacology and will have initiated the development of a wide range of relevant skills such as communication, problem solving, data analysis and presentation. To achieve this, factual information is delivered through lectures, supported by prepared material, and the provision of lecture notes in electronic form via Blackboard. Learning and writing skills are reinforced through the use of regular assignments; these are focused on the subject matter of the relevant modules, and provide an opportunity for staff to give specific feedback on writing skills. The skills modules also focus on the development of teamwork, planning, understanding accuracy and variability, and the generation of scientific hypotheses. All students are able to word-process, use e-mail, and access the University network, as demonstrated by coursework. Effective time-management is encouraged through tutorial exercises.

Modules at Level 5 and 6 are still delivered by a mixture of teaching methods, but with an increased emphasis on input from the student. Class sessions are used more widely for problem-solving and group work. A range of other skills are developed, e.g. oral skills through discussions and oral presentations. Modules use teaching aids as deemed

appropriate by the module teams. These may include videos, e.g. showing an experimental technique; CAL (computer assisted learning) packages; and printed material for problems, data manipulation and interpretation and case studies.

Within the Physiology and Pharmacology course, skills in carrying out practical work are fostered through laboratory classes with workbook or practical manuals, that include the description of safe working practices. In addition to the above, you will also be asked to write laboratory reports and interpret other data. This approach is important in developing the skills necessary to undertake the final year project.

Throughout your course you will have the opportunity of developing a range of practical competencies based in the area of laboratory skills. These are key employment skills and are important in ensuring that you can work accurately and efficiently when dealing with biological samples.

Students studying Bioscience undergraduate courses will study statistical and IT skills. Such modules will equip you with the necessary analytical and presentational skills to carry out Level 6 work and, in particular, the Honours Project.

The School offers a variety of opportunities for placement learning across our degree schemes. For Physiology and Pharmacology students the main opportunity is to undertake one of the summer internships that take place over the summer period between the academic years of your course.

The Level 6 modules are designed to provide in-depth study in selected areas. By the end of the course it is expected that you will have developed the appropriate skills to undertake independent study; be able to demonstrate higher level cognitive skills such as evaluating information, and developing clear and consistent arguments; be able to plan, design and undertake investigative work; be able to work effectively as part of a group; to apply theory/knowledge to new situations; formulate and test hypotheses by designing experiments and applying practical techniques; analyse and evaluate data supported by logical and structured argument; and define and develop strategies for solving problems.

At each level you are expected to spend a significant amount of time in private study. At level 4 this is typically 15-20 hours per week, and reading is mainly of set texts. By level 6 as class contact time is reduced, more private study time is expected, with reading of reviews and the primary literature, some being suggested by academic staff and some found by you using the resources that are available to you through using the library.

Communication is developed through discussions and presentations; numeracy and statistics via practical work; IT through coursework; and teamwork through class work in problem-based learning, tutorials, case studies, and problem-solving. Generally class sizes are smaller for Level 6 modules, providing the opportunity for more of a 'seminar' type of approach. There is an increasing expectation that material should be prepared in advance of sessions for discussion / presentation, and that wider use is made of the primary literature.

The final-year research project at Level 6 particularly allows you to develop and demonstrate your self-organisation and planning.

The School recognises the main purposes of assessment as the diagnosis of strengths and weaknesses; encouragement to be involved in determining your own performance; and testing the achievement of the learning outcomes. Assessment is continuous and comprises both formative where the marks do not contribute to the final grade and summative where the marks do form part of the final grade. Formative assessment encourages the development of personal self-awareness and self-evaluation such that corrective change can be instigated by the individual. This formative feedback is central to the development of you as a student from a dependent to independent worker, which is at

the heart of the programme philosophy. This self- assessment begins during year 1 of the programme and is particularly evident in the skills modules.

The summative assessment learning strategy in each module is designed to best test the achievement of the module learning outcomes. A range of assessment methods are utilised including short-note writing, essays, laboratory notebooks, practical exercises, data interpretation, problem solving, practical reports, presentations and examinations. Some of the above are on a group basis, and in this case there maybe an element of peer assessment. The examination formats change from Level 4, where multiple choice and shorter questions are used, to Level 5 and 6 where longer, more evaluative, questions and problem solving exercises are utilized.

3.2 Study skills

The University has a study skills support facility for students called **WISER**. WISER is an acronym for the two ways in which you may wish to make use of this service.

Walk-In Study Enhancement through Review drop in, one to one **tutorial** consultations, which is available to all students during term-time. The focus is on specific and individual needs.

The university is continuously investing in various software programmes that are designed to help students with their written and mathematical skills, and some of these maybe available to you if it is deemed that you need such support.

WISER: <http://www.uclan.ac.uk/students/study/wiser/index.php>



3.3 Learning resources

3.3.1 Learning Information Services (LIS)

Extensive [resources](#) are available to support your studies provided by LIS – library and IT staff. Take advantage of the free training sessions designed to enable you to gain all the skills you need for your research and study.

During term time the library is open 24 hours a day although some services will not be operating during the night. During the summer vacation the library is open from 7.30 am to 10 pm.

3.3.2 Electronic Resources

LIS provide access to a huge range of electronic resources – e-journals and databases, e-books, images and texts. In addition, the modules that form your course also have suggested e-reading lists associated with them. Further details can be found in individual module booklets.

There is also an on-line timetable that shows you your individual timetable for the modules that you are taking. You are advised to consult the timetable at the beginning of each week so that you can plan your study periods around organised teaching activities.

Much of the material that you will require to engage with the individual modules that you are taking can be found on ELearn (Blackboard). Here you can access module booklets and lecture notes. You will also be required to submit **much** of your course work on-line through the plagiarism checker Turnitin.

3.4 Personal development planning

The School's PDP programme is based around core modules and assessments rather than stand-alone modules. You are introduced to the idea of PDP and career planning through sessions in induction week, including a talk from a careers advisor or employer and meetings with your Academic Advisor. Reflection and self-assessment on your achievements and goal setting is supported by linking selected coursework to the reflection process. The course team has identified the coursework to be included in the scheme so that it covers a wide range of skills. In years 1 and 2, two pieces of coursework per year will be used as the basis for reflection. You are asked to reflect (and record your reflections) on these pieces of work both before submission and after obtaining the mark and feedback. You will have meetings with your Academic Advisor, who is responsible for discussing the reflection and notifying the module tutors that it has occurred. Reflection is encouraged by assessing its occurrence by modifying coursework marks. A bonus of up to 10% of the module mark will be given if PDP if selected coursework is reflected on and the reflection discussed with your Academic Advisor. In some cases this PDP may be given a pass or fail element for the module which means that if you do not do this then you will automatically fail the module.

You are advised to keep a progress file containing the reflections and examples of work. You are responsible for ensuring that any relevant information is included in the progress file. It is also advantageous to file returned course work so that you have a readily accessible record of the work that you have completed and the grades that you have obtained. You should also use the feedback on your coursework to inform and improve future submissions.

In the 3rd year, you will be required to produce a reflective diary and this will be associated with the research project. In semester 1 you will be required to produce two reflections, including one after you have received comments from your supervisor on the draft Introduction for individual projects or after the presentations for Group projects. In semester 2 you will be required to produce four reflections during the research work i.e. once a fortnight and finally one reflection after you have submitted your final report.



3.5 Preparing for your career

Your future is important to us, so to make sure that you achieve your full potential whilst at university and beyond, your course has been designed with employability learning integrated into it at every level. This is not extra to your degree, but an important part of it which will help you to show future employers just how valuable your degree is. These "Employability Essentials" take you on a journey of development that will help you to write your own personal story of your time at university:

- To begin with, you will explore your identity, your likes and dislikes, the things that are important to you and what you want to get out of life.
- Later, you will investigate a range of options including jobs and work experience, postgraduate study and self-employment,
- You will then be ready to learn how to successfully tackle the recruitment process.

[Careers](#) offers a range of support for you including:-

- career and employability advice and guidance appointments
- support to find work placements, internships, voluntary opportunities, part-time employment and live projects
- workshops, seminars, modules, certificates and events to develop your skills.

Daily drop in service available from 09:00-17:00 for CV checks and initial careers information. For more information come along and visit the team (in Foster building near the main entrance) or access our careers and employability resources via the Student Portal.

In addition to the above, the School also runs a taster day for students considering postgraduate study. These are advertised on the main display screen in the School foyer.

Employability skills are embedded in all elements of the course, with potential employers involved in the design, delivery and developments of course material. To aid you in developing your employability skills you will be offered the opportunity to undertake work experience (as outlined in the UCLan advantage) and to generate a personal development plan linked to your studies. During your course you will also be invited to attend an employability week where there will be opportunity to liaise with potential employers further develop your skills in this area.

4.Student Support

We realise that for most of you it can be a daunting time when you first start at university and it maybe your first time away from home. We are sure that in the first few days at the start of your time at the University you will make friends with people on your course and this friendship could last for much longer than the few years you will be at UCLan.



4.1 Academic Advisors

You will be assigned an Academic advisor during Induction Week. The Academic advisor will generally be a member of Academic Staff who has a good understanding of your course (and most probably who teaches a significant amount of the material on your course).

The role of the Academic advisor is to meet regularly with you and to provide a focal point for academic development, to provide individual feedback on progress, to identify areas needing improvement and discuss strategies for achieving this and to monitor attendance and progress through the course.

The Academic advisor also gives guidance to students following Assessment Boards.

The School expects undergraduate students to have at least six meetings with the Academic Advisor during Year 1, with at least three of these being 'one to one' meetings. In subsequent years, there will be at least three contacts in Year 2 and Year 3.

When appropriate, your Academic Advisor may well refer you to specialized central University support eg. WISER, and may liaise with Careers to help provide you with careers guidance.

4.2 Students with disabilities

If you have a disability that may affect your studies, please either contact the Disability Advisory Service -disability@uclan.ac.uk- or let one of the course team know as soon as possible. With your agreement information will be passed on to the Disability Advisory Service. The University will make reasonable adjustments to accommodate your needs

and to provide appropriate support for you to complete your study successfully. Where necessary, you will be asked for evidence to help identify appropriate adjustments.

Assessment Arrangements are made for students who have a disability/learning difficulty for which valid supporting evidence can be made available. Contact the Disability Adviser for advice and information, disability@uclan.ac.uk

In our School, Dr Lisa Shaw is the point of contact for students with disability. Lisa's office is MB241 in Maudland building, email lshaw1@uclan.ac.uk or phone 01772 895829.

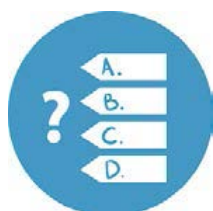
4.3 Students' Union

The Students' Union offers thousands of volunteering opportunities ranging from representative to other leadership roles. We also advertise paid work and employ student staff on a variety of roles. You can find out more information on our website:

<http://www.uclansu.co.uk/>

5. Assessment

Please note that all modules will be assessed. You are expected to attempt all required assessments for each module for which you are registered, and to do so at the times scheduled unless authorised extensions, special arrangements for disability, or extenuating circumstances allow you to defer your assessment.



5.1 Assessment Strategy

The School recognises the main purposes of assessment as the diagnosis of strengths and weaknesses; encouragement to be involved in determining your own performance; and testing the achievement of the learning outcomes. Assessment is continuous and comprises formative and summative methods. Formative assessment encourages the development of personal self-awareness and self-evaluation such that corrective change can be instigated by the individual. This formative feedback is central to the development of the student from a dependent to independent worker which is at the heart of the programme philosophy. The nature of formative assessment varies between modules. In some there are short tests or essays, in others there is informal feedback via activities such as tutorials or discussion of experiment results during laboratory sessions.

The summative assessment strategy in each module is designed to best test the achievement of the module learning outcomes. A range of assessment methods are utilised including short-note writing, essays, laboratory notebooks, practical exercises, data interpretation, problem solving, practical reports, presentations and examinations. Some of the above are on a group basis, and in this case there may be an element of peer assessment. The examination formats change from Year 1, where multiple choice and shorter questions are used, to Year 2 and beyond where longer, more evaluative, questions and problem solving exercises are utilised.

Thus assessments are extremely important and you should devote sufficient time to each one and plan your work accordingly.

5.2 Notification of assignments and examination arrangements

Full details relating to the assessment of your course, (including policies on deadlines, penalties for late submission, plagiarism and feedback) can be found in the "Student's Guide to Assessment" which will be updated annually and made available to you via Blackboard.

Precise details of the timing and nature of individual assignments will be made available within individual Module Booklets, provided at the beginning of each semester. At the discretion of the Module Tutor this information may be supplemented with additional detail (including the assessment criteria – if not available in the module booklet) which will be given out during taught classes when the individual assignments are set, and well in advance of the submission date.

The marking criteria that are used to assess your work can be found in the module booklet.

5.3 Referencing

It is normal School policy to use the Harvard style of referencing. Below are a few examples, you will be given a lot more guidance in your modules.

Citing authors in the text:

Single author: The action of nicotine on neuronal receptors (Smith, 2010)

Two authors: The action of nicotine on neuronal receptors (Smith and Jones, 2010)

Three or more authors: The action of nicotine on neuronal receptors (Smith *et al.*, 2010)

Citations for a reference list:

Smith, A.A (2010) The action of nicotine on neuronal receptors. *Molecular Pharmacology* **10**, 781-791.

5.4 Confidential material

Although you are not expected to access confidential information during the course, you still need to be aware of ethical and legal responsibilities to respect confidentiality and maintain anonymity of individuals and organisations.

5.5 Cheating, plagiarism, collusion or re-presentation

Please refer to the information included in section 6.6 of the University Student Handbook for full definitions. The University uses an online Assessment Tool called Turnitin. A pseudo-Turnitin assignment will be set up using the School space on Blackboard to allow students to check as many drafts as the system allows before their final submission to the 'official' Turnitin assignment. Students are required to self-submit their own assignment on Turnitin and will be given access to the Originality Reports arising from each submission. In operating Turnitin, Schools must take steps to ensure that the University's requirement for all summative assessment to be marked anonymously is not undermined and therefore Turnitin reports should either be anonymised or considered separately from marking. Turnitin may also be used to assist with plagiarism detection and collusion, where there is suspicion about individual piece(s) of work.

In **Year 1** we tend to take a more lenient view of plagiarism and we call it poor academic practice. If a member of staff believes that you may have plagiarised you will be invited to discuss the situation. This will be to show you where you may have gone wrong to help you in the future but we will not invoke the University regulations on plagiarism. However, if a further issue of plagiarism occurs then the University regulations will apply.

The term poor academic practice constitutes 2 possibilities:

1. Where a student has copied word for word or made a minimal attempt to re- word information from a written source eg internet or book etc. without including a reference to the original source. In this case the student will be instructed to re-submit the assessment for a capped assessment mark of 40%.
2. Where a student has copied word for word or made a minimal attempt to re- word information from a written source eg internet or book etc. but has included a reference to the original source. In this case the marker may decide that there is insufficient evidence that the student understands the area and thus a mark cannot be given. In this case the student will be instructed to re-submit the assessment for a capped assessment mark of 40%.

During induction week you will be given tutorial(s) on how to use Turnitin.

The process of investigation and penalties which will be applied can be reviewed in the [Assessment Handbook](#). If an allegation is found to be proven then the appropriate penalty will be implemented:

In the case of a single offence of cheating, plagiarism, collusion or re-presentation:

- the penalty will be 0% for the element of assessment, and an overall fail for the module.
- the plagiarised element of assessment must be resubmitted to the required standard and the mark for the module following resubmission will be restricted to the minimum pass mark (ie 40% for levels 4, 5 and 6 work, 50% for level 7 work).
- when it is detected for the first time on a resubmission for an already failed module, no further resubmission for the module will be permitted, and the appropriate fail grade will be awarded.

In the event of a repeat offence of cheating, plagiarism, collusion or re-presentation (irrespective of whether the repeat offence involves the same form of unfair means) on the same or any other module within the course:

- the appropriate penalty will be 0% for the module with no opportunity for re-assessment. This penalty does not preclude you being able to retake the module in a subsequent year.

The penalties will apply if you transfer from one UCLan course to another during your period of study and module credits gained on the former course are transferred to the current course.

Contact the [Students' Union Advice and Representation Centre](#) by emailing: suadvice@uclan.ac.uk for support and guidance.

6. Classification of Awards

The University publishes the principles underpinning the way in which awards and results are decided in [Academic Regulations](#). Decisions about the overall classification of awards

are made by Assessment Boards through the application of the academic and relevant course regulations.



7. Student Feedback

You can play an important part in the process of improving the quality of this course through the feedback you give. In addition to the ongoing discussion with the course team throughout the year, there are a range of mechanisms for you to feedback about your experience of teaching and learning. We aim to respond to your feedback and let you know of our plans for improvement.

At the end of each academic year we review all our modules. During this process we take into account student views, which are discussed at Staff Student Liaison Committee meetings and also Module Evaluation Questionnaires (see below). Following the discussions at Module Review, we may decide, for example to alter the number and/or type of module coursework assessments. Alternatively we may choose to leave the module as it is for the next academic year. In addition, the Guidance support co-ordinator will meet with all Year 1 students and all course representatives twice during each academic year.

For example, for 2015-2016 academic year we introduced a new 2nd year module BL2224. This module greatly aided the student in their understanding of contemporary techniques in cell biology. This should help the student since such techniques will then not be new to the student when they may be discussed in third year modules. However, at the end of the first delivery of the module the students felt that the practical demonstrations were very useful but that they didn't need to really write an assessed laboratory book for these. Thus, for 2016-2017 we removed this assessment from the module.

7.1 Student Staff Liaison Committee meetings (SSLCs)

Details of the Protocol for the operation of SSLCs is included in section 8.2 of the University Student Handbook.

A course representative is a student who represents their fellow students' views and opinions to the course team, school, university and students' union. Course representatives work proactively and diplomatically to improve the academic and non-academic experiences of students.

The role of a course representative is extremely beneficial to both students on your course and the university. It enables students to have ownership of their student experience and voice their opinions and share positive practice with the course team, primarily the Student Staff Liaison Committee Meetings (see below).

Course representatives will be elected every year either in April or September. Alongside receiving recognition, support and respect being a course representative is a great opportunity to enhance your employability skills. If you are interested in becoming a course representative and wish to find out more about the role simply contact the [Students' Union Advice and Representation Centre](mailto:coursereps@uclan.ac.uk) by emailing: coursereps@uclan.ac.uk.

School Presidents meanwhile are annually elected representatives who voice the opinions of students within each school. They communicate and engage with students in their school to gain feedback and work in partnership with senior management to create positive change. They are also trained to support and signpost course representatives where needed. If you wish to find out who is your School President or more about the role visit the [Students' Union website](#) or email: coursereps@uclan.ac.uk.

Appendices

8.1 Programme Specification(s)

UNIVERSITY OF CENTRAL LANCASHIRE

Programme Specification

This Programme Specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided.

1. Awarding Institution / Body	University of Central Lancashire
2. Teaching Institution and Location of Delivery	University of Central Lancashire
3. University Department/Centre	School of Pharmacy and Biomedical Sciences
4. External Accreditation	Not applicable
5. Title of Final Award	BSc (Hons) Physiology and Pharmacology
6. Modes of Attendance offered	Full time Sandwich
7. JACS Code	B120
8. Relevant Subject Benchmarking Group(s)	Biomedical Science and Biosciences (BS)
9. Other external influences	Core curriculum in Pharmacology for BSc Pharmacology programmes, published by the British Pharmacological Society [BPS]
10. Date of production/revision of this form	Jan 2018

11. Aims of the Programme

- To develop a knowledge and understanding of physiology and pharmacology based on a scientific foundation, with the ability to apply knowledge and analyse and evaluate information.
- To instil an understanding of the importance of the study of physiology and pharmacology and how it can be applied in different contexts.
- To involve the learner in a stimulating learning environment in which students are encouraged to achieve personal growth in terms of a wide range of skills including communication, numeracy, IT, independence, interpersonal and group-working skills.
- To develop competence in the definition, implementation and monitoring of plans for self-development.
- To prepare the learner for a career in physiology and pharmacology or in positions requiring knowledge of physiology and pharmacology.

12. Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge and Understanding

- A1. Be able to explain and critically discuss the basic principles of physiological and pharmacological investigations (along with associated areas of biochemistry molecular biology and microbiology) and the underpinning science behind them. This will include some elements of study where there are conflicting opinions and the current information available can only lead to postulated explanations due to the limits of our knowledge.
- A2. Be able to determine an appropriate method to analyse data that will be produced from various types of biological study and be able to apply such tests.
- A3. Be able to apply theory/knowledge to new situations, including the formulation of a hypothesis, the design of experiments and the application of knowledge to new contexts in the biological sciences.
- A4. Be able to determine an appropriate statistical test to analyse data that will be produced from various types of study and be able to apply these tests.

Teaching and Learning Methods

A range of teaching and learning methods will be used including lectures, practicals, IT, laboratory sessions, tutorials, presentations, reading, problem solving exercises, case studies, discussions and reflection. Some formative assessments and personal study will involve the use of online MCQs.

A final year research module will give the students the opportunity to develop their research skills.

Assessment methods

Students will demonstrate their knowledge and understanding through a combination of workbooks; short notes; essays; reports of various types e.g. practical reports, summaries, data analysis; group and individual presentations; end of module examinations. The final module mark is based on a weighted aggregate of all assignments in that module.

B. Subject-specific skills

- B1. Be able to apply specialist knowledge of physiology and pharmacology to new situations e.g. theorise as to how a defined abnormality will perturb the normal physiology of a system.
- B2. Be able to understand the pharmacology and physiology of various tissues/organs such that one could propose the use of specific pharmacological agents to regulate the physiological properties of various tissues/organs.
- B3. Be able to make use of appropriate laboratory equipment to enable a biological study to be undertaken.
- B4. Be able to work accurately, in an organised manner, observing appropriate safety precautions over a range of biological methods associated with physiological and pharmacological investigations.
- B5. Be able to discuss the safety aspects to be considered when undertaking laboratory based investigations and to work safely within a laboratory environment.
- B6. Be able to manipulate a range of physiological/pharmacologically based data to present them in the most appropriate format and interpret the findings from such data.

Teaching and Learning Methods

A range of teaching and learning activities will be used including data interpretation exercises; laboratory practical work, using workbooks or laboratory manuals and the production of appropriate written and/or oral material based on the work. Write laboratory reports. Safe working practices are included in all laboratory investigations, but particularly when designing experiments and in the main research project. Material will also be explored in lectures, tutorials and seminars which will allow students the opportunity to discuss physiology- and pharmacology-based information and place it in a wider scientific context: appropriate essays will be set that allow the students to assimilate and expand on the information supplied. All students will be able to access much of their course-related material (Course and module information, lecture notes and assessment information) via Blackboard.

Assessment methods

Students will demonstrate their knowledge and understanding through a combination of laboratory competencies; laboratory notebooks; workbooks; presentations; examinations; reports of various types e.g. practical reports, data analysis; case studies; research project report. For some modules there will be in-module tests taken throughout the duration of the module to help the students to ascertain how much information they have understood so far on a module. The final module mark is based on a weighted aggregate of all assignments in that module.

C. Thinking Skills

- C1. Be able to locate and appraise critically relevant published literature and extract pertinent information from such sources.
- C2. Be able to define and develop strategies for solving problems.

C3. Be able to analyse a range of data derived experimentally, or sources from the literature or databanks, and evaluate it critically with the support of a logical and structured argument.

Teaching and Learning Methods

A range of teaching and learning activities will be used including lectures; practical work; data interpretation exercises; PBL exercises; case studies; discussions within the group and with tutors. A final year research module will give the students the opportunity to develop their research skills, including selection and interpretative skills and mastery of using primary and secondary sources.

Assessment methods

Students will demonstrate their knowledge and understanding through a combination of workbooks; short notes; essays; presentations; examinations; reports of various types e.g. practical reports, summaries, data analysis; the research project. The final module mark is based on a weighted aggregate of all assignments in that module.

D. Other skills relevant to employability and personal development

D1. Be able to write using an appropriate scientific style.

D2. Be able to work as a useful contributor to a group or independently.

D3. Be able to use IT effectively for information retrieval, analysis, communication and presentation.

D4. Be able to communicate effectively to transmit ideas and conclusions.

D5. Be able to demonstrate planning, time-management, work to deadlines; carry out independent learning and to undertake career planning and development.

Teaching and Learning Methods

Coursework is generally submitted electronically; workshops developing skills in the use of appropriate IT sources, including the internet, the use of databases and suitable IT analytical packages; workshops on the library and literature searching; presentations; practical work incorporating numeracy and statistics; teamwork through tutorials, case studies, practicals and problem solving activities. Students are given guidance on the development of skills via specific skills modules and this can be complemented by discussions with their academic advisor.

Assessment methods

Students will demonstrate their knowledge and understanding through a combination of written reports, presentations; laboratory notebooks; group and individual work; data analysis and presentation and a final year research project report. The final module mark is based on a weighted aggregate of all assignments in that module.

13. Programme Structures*				14. Awards and Credits*
Level	Module Code	Module Title	Credit rating	
Level 6	BL3011	Research Project	40	<p>BSc (Hons) Physiology and Pharmacology</p> <p>Requires 360 credits, including a minimum of 220 at Level 5 or above, and including 100 at Level 6.</p> <p>BSc Physiology and Pharmacology</p> <p>Requires 320 credits including a minimum of 180 at Level 5 or above, and including 40 at Level 6.</p> <p>Students who also successfully complete module BL2017 will receive the award with 'Placement'.</p>
	BL3019	Contemporary Topics in Physiology	30	
	BL3020	Molecular Neuropharmacology	30	
	BL3021	Drug Development	20	
Level 5*	BL2017	Placement year	120 (optional)	
Level 5	BL2011	Bioscience Practical Skills	60	<p>Dip. HE Physiology and Pharmacology</p> <p>Requires 240 credits including a minimum of 100 at Level 5 or above.</p>
	BL2013	Molecules to Cells	20	
	BL2016	Physiology and Pharmacology	40	
Level 4	BL1011	Fundamentals of Biosciences	60	<p>Cert. HE</p> <p>Requires 120 credits including 100 at Level 4 or above.</p>
	BL1012	Essential Skills in Biosciences	40	
	BL1013	Biosciences in Practice	20	

Level 3	FZC005	Skills for science	20	Foundation entry
	FZC006	Biology	20	
	FZC007	Chemistry	20	
	FZC008	Biochemistry	20	
	FZC009	Mathematics	20	
	FZC010	Physics	20	

All modules at levels 4,5 and 6 have been designated as compulsory modules including the project modules and are requirements for an honours award with exception of Level 5 BL2017 Optional placement year

15. Personal Development Planning

The PDP programme is based around core modules and assessments rather than stand-alone modules. Students are introduced to the idea of PDP and career planning through sessions in induction week, including meetings with their academic advisor. Reflection and self-assessment on their achievements and goal setting is supported by linking selected coursework to the reflection process. Students are asked to reflect (and record their reflections) on these pieces of work both before submission and after obtaining the mark and feedback. The students have meetings with their academic advisors who are responsible for discussing the reflection and notifying the module tutors that it has occurred. Reflection is encouraged by embedding it within in the pass requirements of selected modules.

Students are advised to keep a progress file containing the reflections and examples of work. In the 3rd year, students are asked to supply to their project supervisor with examples of reflection showing achievement in a list of skills. Work on career development, CV writing etc is incorporated throughout the course and via the academic advisor system..

16. Admissions criteria

112 points including Biology or Chemistry or Environmental Science or Applied Science and pass in science practical (if applicable) at A2 level and 5 GCSE passes, including maths and English at grade C or above. Other acceptable qualifications include:

- BTEC Extended Diploma (DDM)
- Scottish Certificate of Higher Education Higher Grade passes
- Irish Leaving Certificate Higher Grade
- International Baccalaureate 28P including grade HL5 in Biology or Chemistry
- Appropriate Access to HE Course 112 UCAS points including 15 level 3 credits with distinction in chemistry or biology
- Appropriate Foundation Course 60% or above

Students where English is not their first language need to demonstrate their ability in the English language through obtaining an IELTS score of 6.0 or above with no element below 5.5.

Applications from people with relevant work or life experience and/or non-standard qualifications are welcomed and will be considered on a case-by-case basis.

17. Key sources of information about the programme

- Outside the University – QAA website, including the Physiology and Pharmacology benchmark statements; UCAS handbooks and web site.
- University sources – University/School of Pharmacy and Biomedical Sciences web sites (www.uclan.ac.uk/pharmacy); School of Pharmacy and Biomedical Sciences brochures; University prospectus, Student Handbook.

19. LEARNING OUTCOMES FOR EXIT AWARDS:

For **each exit award available**, list learning outcomes relating to the knowledge and understanding, subject specific skills, thinking, other skills relevant to employability and personal development that a typical student might be expected to gain as a result of successfully completing each level of a course of study.

For example a student may be able to critically analyse something by the time that they complete the target award but at diploma level they might not be able to outline it and at certificate list.

For a standard BA/BSc (Hons) award the exit award learning outcome for CertHE (Level 4) and DipHE (Level 5), BA/BSc (Level 6) should be included: for a postgraduate Masters, this would normally be PGDip and PGCert.

Learning outcomes for the award of:

BSc (level 6)

A1. Be able to explain and discuss the basic principles of physiological and pharmacological investigations (along with associated areas of biochemistry molecular biology and microbiology) and the underpinning science behind them. This will include some elements of study where there are conflicting opinions and the current information available can only lead to postulated explanations due to the limits of our knowledge.

A2. Be able to determine an appropriate method to analyse data that will be produced from various types of biological study and be able to apply such tests.

A3. Be able to apply theory/knowledge to new situations, including the formulation of a hypothesis, the design of experiments and the application of knowledge to new contexts in the biological sciences.

A4. Be able to determine an appropriate statistical test to analyse data that will be produced from various types of study and be able to apply these tests.

B1. Be able to apply specialist knowledge of physiology and pharmacology to new situations e.g. theorise as to how a defined abnormality will perturb the normal physiology of a system.

B2. Be able to understand the pharmacology and physiology of various tissues/organs such that one could propose the use of specific pharmacological agents to regulate the physiological properties of various tissues/organs.

B3. Be able to make use of appropriate laboratory equipment to enable a biological study to be undertaken.

B4. Be able to work accurately, in an organised manner, observing appropriate safety precautions over a range of biological methods associated with physiological and pharmacological investigations.

B5. Be able to discuss the safety aspects to be considered when undertaking laboratory based investigations and to work safely within a laboratory environment.

B6. Be able to manipulate a range of physiological/pharmacologically based data to present them in the most appropriate format and interpret the findings from such data.

C1. Be able to locate and appraise relevant published literature and extract pertinent information from such sources.

C2. Be able to define and develop strategies for solving problems.

C3. Be able to analyse a range of data derived experimentally, or sources from the literature or databanks, and evaluate it with the support of a logical and structured argument.

D1. Be able to write using an appropriate scientific style.

D2. Be able to work as a useful contributor to a group or independently.

D3. Be able to use IT effectively for information retrieval, analysis, communication and presentation.

D4. Be able to communicate effectively to transmit ideas and conclusions.

D5. Be able to demonstrate planning, time-management, work to deadlines; carry out independent learning and to undertake career planning and development.

DipHE (Level 5)

A1. Be able to explain the basic principles of physiological and pharmacological investigations (along with associated areas of biochemistry molecular biology and microbiology) and the underpinning science behind them.

A2. Be able to determine an appropriate method to analyse data that will be produced from various types of biological study and be able to apply such tests.

A3. Be able to apply theory/knowledge, including the formulation of a hypothesis, the design of experiments and the application of knowledge to the biological sciences.

A4. Be able to determine an appropriate statistical test to analyse data that will be produced from various types of study and be able to apply these tests.

B1. Be able to apply specialist knowledge of physiology and pharmacology to new situations e.g. theorise as to how a defined abnormality will perturb the normal physiology of a system.

B2. Be able to understand the pharmacology and physiology of various tissues/organs and the use of specific pharmacological agents to regulate the physiological properties of various tissues/organs.

B3. Be able to make use of appropriate laboratory equipment to enable a biological study to be undertaken.

B4. Be able to work accurately, in an organised manner, observing appropriate safety precautions over a range of biological methods associated with physiological and pharmacological investigations.

B5. Be able to identify the safety aspects to be considered when undertaking laboratory based investigations and to work safely within a laboratory environment.

B6. Be able to manipulate a range of physiological/pharmacologically based data and present them in the most appropriate format.

C1. Be able to locate and appraise relevant published literature and extract pertinent information from such sources.

C2. Be able to define and identify strategies for solving problems.

C3. Be able to analyse a range of data derived experimentally, or sources from the literature or databanks, and evaluate it with the support of a logical and structured argument.

D1. Be able to write using an appropriate scientific style.

D2. Be able to work as a useful contributor to a group or independently.

D3. Be able to use IT effectively for information retrieval, analysis, communication and presentation.

D4. Be able to communicate effectively to transmit ideas and conclusions.

D5. Be able to demonstrate planning, time-management, work to deadlines; carry out independent learning and to undertake career planning and development.

Cert HE (Level 4)

A1. Describe the basic principles of physiological and pharmacological investigations (along with associated areas of biochemistry molecular biology and microbiology).

A2. Be able to use appropriate methods to analyse data.

A3. Be able use theory/knowledge in the study of biological sciences including any associated ethical issues.

A4. Be able to apply a basic statistical test to analyse data.

B1. Be able to apply specialist knowledge in physiology and pharmacology investigations.

B2. Be able to understand the pharmacology and physiology of various tissues/organs that regulate their functions.

B3. Be able to make use of appropriate laboratory equipment to enable a biological study to be undertaken.

B4. Be able to work accurately, in an organised manner, observing appropriate safety precautions associated with physiological and pharmacological investigations.

B5. Be able to identify the safety aspects to be considered when undertaking laboratory based investigations and to work safely within a laboratory environment.

B6. Be able to manipulate basic physiological/pharmacologically data and graphically present such results.

C1. Be able to locate relevant published literature and extract pertinent information from such sources.

C2. Be able to identify strategies for solving problems.

C3. Be able to analyse data derived experimentally, or sources from the literature or databanks, and use logical and structured arguments.

D1. Be able to write using an appropriate scientific style.

D2. Be able to work as a useful contributor to a group or independently.

D3. Be able to use IT effectively for information retrieval, analysis, communication and presentation.

D4. Be able to communicate effectively to transmit ideas and conclusions.

D5. Be able to demonstrate planning, time-management, work to deadlines; carry out independent learning and to undertake career planning and development.