PROGRAMME SPECIFICATION	

1	**Awarding Institution**	Newcastle University
2	**Teaching Institution**	Newcastle University
3	**Final Award**	BSc (Hons)
4	**Programme Title**	Zoology
5	**UCAS/Programme Code**	C300
6	**Programme Accreditation**	Not applicable
7	**QAA Subject Benchmark(s)**	Biosciences
8	**FHEQ Level**	Honours Level
9	**Date written/revised**	9th May 2008

10 Programme Aims

1. To produce graduates with:

a) a thorough knowledge and understanding of modern Biology at a general level, and at a more advanced level of areas of modern Zoology including animal behaviour and animal ecology.

b) a wide range of transferable skills, including skills in: laboratory techniques; field techniques; scientific communication; and analysis of data.

c) an experience of a curriculum enhanced by an active research environment, which inspires enthusiasm for Zoology and encourages critical, constructive thinking.

d) qualifications to exploit a wide range of employment opportunities, including in conservation organisations, in biomedical institutes, in industry and in commerce.

2. To recruit well qualified students from a variety of educational backgrounds who wish to undertake a wide ranging, coherent programme of study in Zoology.

3. To provide a programme which: meets the National Framework for Higher Education Qualifications at Honours level; and takes appropriate account of the subject benchmark statements in Biosciences.

11 Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas. The programme outcomes have references to the benchmark statements for Biosciences.

Knowledge and Understanding

On completing the programme students should have gained:

A1 Knowledge of Zoology from the molecular to the community level.

A2 Knowledge of the diversity of animal and of the principles used to classify them. An understanding of phylogeny and evolution.

A3 An understanding of the ways that different types of animals function, including their physiology and behaviour. An understanding of how animals are adapted to survive and reproduce in different environments.

A4 An understanding of ecology, including of the relationships between different animals and between animals and plants.

A5 Knowledge of aspects of subjects related to Zoology. This includes a background in Microbiology

and in Plant Biology. Marine Biology or Psychology can be studied as options.

A6 Experience and appreciation of the operation of the scientific method. This includes: observation; formulating and testing hypotheses; reporting and testing validity of results; and integration of results with wider knowledge.

A7 An informed awareness of the relevance of Biological Knowledge to Society and to contemporary Human problems and needs. Knowledge of legal and ethical aspects of Animal Welfare. First-hand experience of the work performed by professional biologists

Teaching and Learning Methods

Teaching Strategy

Knowledge and understanding are principally imparted through lectures, tutorials and independent reading associated with them. Almost all modules of the course cover material relevant to *A1-A3*, and many are relevant to *A4. A5* is achieved through optional choices, particularly at Stage 1.

Stage 1 establishes a solid grounding in modern Biology, and modules are shared with other biological degrees. This enables flexibility in transfer between degree programmes, especially Zoology and Biology, until well into Stage 2. The teaching at Stages 2 and 3 is more focused on areas of Zoology. Besides imparting factual knowledge, the teaching at Stages 2 and 3 encourages students to think critically about the evidence for factual knowledge, and about the limits of knowledge. Many subjects taught at Stage 3 reflect research specialities of staff and bring students towards the cutting edge of modern investigations. Students are introduced to primary research publications in scientific journals at stages 2, and develop skills at communicating about Science at Stages 2 and 3 by guided practise in tutorials, practical classes and individual projects. *A6* is also taught by practise in scientific investigations gained in practical classes, fieldwork and project work. A specialised lecture and seminar course imparts knowledge and gives opportunity for debate relevant to *A7*, as does an independent project that is conducted in a location of the student's own choosing.

Learning Strategy

Throughout the taught component of the course, students are encouraged and expected to engage in independent reading, and are supported in this by the provision of reading lists, handouts and access to library and web-based resources, particularly the University's Blackboard Teaching site. Formative feedback is provided during tutorials, seminars and for practical work. Initiative is needed, and confidence gained, by students conducting their own project and in the optional 'Zoology Overseas' Module.

Assessment Strategy

Assessment is partly by way of unseen written examinations (essay-type questions, short answer questions, problem-solving questions as appropriate) and partly by way of coursework. In various modules, elements of formative, as well as summative, assessment are employed. In coursework, a variety of assessment methods are used. At stage 3 the distribution of exam-assessed and in-course assessed work is more polarised between modules, though as at stages 1 and 2 each form a major part of the whole stage 3 assessment

Intellectual Skills

On completing the programme students should have:

B1 Experience in accessing and assessing validity of sources of zoological information. These sources include books, research literature, pubic media, and the World-Wide Web.

B2 The abilities: to make observations; and to use appropriate instruments to collect data in scientific investigations. These abilities are important both for field and for laboratory work.

B3 The abilities: to design experiments and surveys; and to use the scientific method to undertake

original investigations.

B4 The abilities: to select and use appropriate techniques for data analysis; and to present data using statistical, graphical and other techniques.

Teaching and Learning Methods

Teaching Strategy

B1 is developed particularly by tutorial classes, library projects, and research project work. *B2-B4* are developed in taught laboratory and field classes and in project work. B4 is introduced by a course in statistics at Stage 1, and further developed in practical classes at Stage 2 and the Stage 3 Residential Fieldcourse. The Residential Field Course and the Research Project, both at Stage 3, are particularly significant by encouraging students to practise practical skills with the help of feedback from staff.

Learning Strategy

Students are encouraged to evaluate their progress and aided in some modules by questionnaires distributed during lectures or on Blackboard, and are by return of in-course work with comments. Several opportunities exist, especially at Stage 2, for students to offer constructive criticism to each other.

Assessment Strategy

Subject-specific skills *B1-B4* are evaluated by assessed written reports. Assessment of laboratory and field work is a feature of some practical components and is often taken into account in the Research Project. *B2* and *B4* are particularly assessed by written report of the Research Project.

Practical Skills

On completing the programme students should be able to:

C1 Handle data from a variety of Zoological disciplines.

C2 Interpret observations and data.

C3 Appraise observations and data and produce a reasoned argument.

C4 Communicate effectively about Science using both written and oral presentations.

C5 Solve problems.

Teaching and Learning Methods

Teaching Strategy

Cognitive skills are developed through: lectures and seminars (*C1, C2*); practical classes in laboratory and field (*C2, C3);* and tutorials and seminars (*C4*). They are refined during Stage 3 in project work during the Residential Field Course and Zoology Overseas as well as during the Research Project.

Learning Strategy

Independent and group project based exercises reinforce these lessons and allow self-evaluation and critique. Some practical classes, as well as the project work, involve problem solving.

Assessment Strategy

Cognitive skills are assessed by: unseen written examinations (*C1*); reports on practical work including the research project and residential field course (*C2*); assigned work reports, student talks, seminars, poster presentations and particularly by the Research Project report (*C3, C4*).

Transferable/Key Skills

On completing the programme students should be able to:

D1 Use sources of information effectively.

D2 Summarise and communicate orally, graphically and in writing in a manner appropriate to the target audience.

D3 Work effectively both independently and as a member of a team.

D4 Plan a programme of work so that the at work is both competent and timely.

D5 Recognize and solve problems.

D6 Develop a sense of responsibility to society and the environment.

Teaching and Learning Methods

Teaching Strategy

Key skills (*D1-3* and *D5*) are taught through: Biology Communication lectures and tutorials at Stage 2 and by work for tutorials, library and other projects in Stage 3. *D6* is developed the Social Impacts of Biology Module; and by lectures and seminars on Conservation.

Learning Strategy

Key skills are practised under guidance from teacher feedback in practical classes and in specialise tutorials at Stage 2, and developed further through project work at Stage 3. All work that is assessed in-course is subject to submission deadlines (*D4*). *D5* is developed by practical work, Zoology Overseas, and the Research Project.

Assessment Strategy

Key skills are assessed in student talks, seminars at Stage 2 in Biology Communication (*D1-D2)*, reports for Zoology Overseas, the Research Project and the Residential Fieldcourse (*D1*-D4).

12 Programme Curriculum, Structure and Features

Basic structure of the programme

Stage 1

At Stage 1, students are given a thorough grounding in Zoology and Biology in general (*A1-4*). Introduction to associated subjects forms one sixth of the year's study (*A5*). All the subject-specific skills specified (*C1-4*) are developed by the practical components of these modules, as are some cognitive (*B1-3*) and key skills (*D1-3*).

Stage 2

At Stage 2, both the depth and breadth of zoological knowledge (*A1-5*) are increased to provide a wide-ranging introduction to the subject. Some courses are based on taxonomic groups (eg, vertebrates, insects, contributing particularly to *A2*), whilst others deal with topics (development, physiology) from a comparative perspective. Subject-specific skills are developed by modules on communication in Science (*C1*) and practical classes (*C2 - 5*). Skills in communication contributes to outcomes*, B1*, *B4* and *C1* and *D1, D2* and *D4*. Work in practical classes and promotes independent and collaborative endeavour (*D3, D4*) and problem solving (*D5*).

Stage 3

At Stage 3, knowledge and understanding (*A1, A3 and A4*) are developed by the four compulsory lecture-based modules, which refer to primary research literature. These exemplify the programme's approach to the subject which relates to different levels of organisation of animals (eg, from molecule to ecosystem; *A1*). Optional modules (eg, on Conservation Biology or Marine Systems Ecology) broaden the learning experience at this stage (*A2*). The Research Project further develops experience in accessing sources of zoological information (*C1*) and most cognitive (B*1, B3, B4)* and key skills (*D1-4, D6*). The Social Impacts of Biology Module also provides a grounding in relevance of Biological Knowledge to Society (*A7*). Zoology Overseas promotes an interest in the work of professional zoologists in a contemporary setting, encourages problem solving skills (*B4, D5*), develops the ability to communicate in a manner appropriate to the target audience (*D2*) and a sense of responsibility to society and the environment (*D6*). The Field Course and the Research Project develop an appreciation of the scientific method (*A6*), all subject-specific skills (*C1-5*) and many cognitive skills (*B2-4*) and key skills (*D1-5*).

Duration: three years; comprises three Stages; a total of 360 credits, 120 credits in each Stage; module credit values vary between 10 and 20 (10 credits represents 100 hours of student activity).

Progression: Pass in 120 credits is required in Stages 1 and 2. Modules that are failed with a mark of 35% or more can be compensated for by passes at 40% or more in other modules. The Board of Examiners may recommend a pass at a lower mark if circumstances warrant.

An important innovative feature of the degree programme at all stages is that laboratory and field studies are integrated into the programme. There is a system of specialist tutorials and library projects at Stages 2 and 3. An introduction to original investigations is provided in the Residential Field course, and the major Research Project is carried out in collaboration with a member of academic staff. The Zoology Overseas optional module provides opportunity to gain first-hand experience of professional biological work.

Key features of the programme (including what makes the programme distinctive)

Through the study of zoology students address questions such as: why do bees dance? How do seals dive for such long periods? Students may also choose to investigate animals and their habitats, or the threat of extinction for rare species. Students will also learn about the practical applications of the subject, including the design of effective conservation programmes and the use of animals as models in the investigation of medical-related problems.

This degree provides a thorough training in contemporary biology, as well as in a number of specialized areas - in particular, we emphasise animal behaviour, ecology, and conservation. This course shares a common Stage 1 with the Biology and Applied Biology degrees and therefore provides an excellent grounding in modern biology and flexibility to transfer between degree programmes. Topics covered include the diversity of animals, ecology and cell biology. Students also have the opportunity to study areas such as marine biology and psychology. Between Stages 2 and 3, students take part in two weeks

of field study, learning about local vertebrates and invertebrates. At Stage 2, modules more focused on zoology include animal behaviour, physiology and development Students may also study modules on conservation, population ecology, vertebrate biology, marine ecology, entomology and parasitology. At this Stage, we introduce students to the way that zoologist report their research findings in scientific journals.

Between Stages 2 and 3, all Zoology students attend a field course and, during the summer vacation, have the opportunity to investigate a topic of particular interest at a location of their choice, such as a wildlife reserve or a marine station. This usually involves visiting an overseas institution. At Stage 3 students study areas of animal behaviour, animal ecophysiology and ecology in greater depth. Optional modules include conservation biology, ecological modelling, marine ecology, genomics, and behaviour of domestic animals. There is also an independent project, supervised by a member of staff usually in an area related to their specialist research. Some projects include practical work in the laboratory or field, and others include creating a display, website, video or other mateiral targetted at a particular audience.

Programme regulations (link to on-line version)

http://www.ncl.ac.uk/regulations/programme/

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Degree of Bachelor of Science with Honours in Zoology
UCAS Code: C300

Notes

(i) These programme regulations should be read in conjunction with the University's Undergraduate Progress Regulations and Examination Conventions.

(ii) All optional modules are offered subject to the constraints of the timetable and to any restrictions on the number of students who may be taught on a particular module. Not all modules may be offered in all years and they are listed subject to availability.

(iii) A compulsory module is a module which a student is required to study.

(iv) A core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.

1. Stage 1

(a) Unless otherwise stated modules are not core.

(b) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
ACE1013	Introduction to Genetics	10	10		C	
ACE1019	Introductory Biochemistry for Biologists	20	10	10	C	
BIO1001	Cell Biology	10	10		C	
BIO1002	The Animal Kingdom	10	10		C	
BIO1003	Plant Biology 1	10		10	C	
BIO1004	Microbiology 1	10	10		C	
BIO1005	Evolution	10	10		C	

BIO1006	Ecology 1	10		10	C	
MAS1401	Statistical Methods	10		10	C	

(c) All candidates shall take 20 credits of the following optional modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
PSY1006	Instinct, learning and motivation	10		10	C	
PSY1009	Cognition, Emotion and Stress	10		10	C	
MST1001	Biodiversity of Marine Animals	20		20	C	

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

2. Stage 2

(a) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BIO2001	Biology Communication	10	10		I	
BIO2002	Biodiversity and Conservation	10		10	I	
BIO2003	Field identification Skills	10	10		I	
BIO2007	Vertebrate Biology	10		10	I	
BIO2008	Population Genetics	10		10	I	
BIO2009	Ecology of Populations and Communities	10		10	I	
BIO2010	Molecular Biology & and Genomics	10	10		I	
BIO2013	Animal Behaviour	10	10		I	
BIO2014	Animal Physiology	10	10		I	
MST2010	Animal Development	10		10	I	

Note: BIO2003 Field Identification Skills will take place during the summer preceding Stage 2

(b) All candidates shall take 20 credits of optional modules from the following :

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
ACE2031	Animal Parasitology	10		10	I	
BIO2006	Entomology	10	10		I	
MST2001	Tropical Marine Environments and Ecology	10	10		I	
MST2009	Fisheries Biology and Aquaculture	10		10	I	
NCL2001/2	Student Tutoring (Semester 1 or 2)	10	10	10	I	
PSY2007	Biological Psychology: Sex Drugs and Rhythm	10		10	I	

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

3. Stage 3

(a) All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
BIO3001	Animal Ecophysiology	10	10		H	
BIO3014	Evolution and Behaviour	10	10		H	
BIO3015	Social Impact of Biology	10		10	H	
BIO3016	Mechanisms of Behaviour	10		10	H	
BIO3022	Residential Field Course *	10	10		H	
And either						
BIO3095	Biological Information Project	20	10	10	H	
Or						
BIO3096	Research Project	20	10	10	H	

*** Note: BIO3022 will take place in the period immediately following the end of Semester 2 examinations in Stage 2.**

(b) All candidates shall take 50 credits of optional modules selected from the following list:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Level*	*Type*
ACE3049	Companion Animal Behaviour	10		10	H	
BIO3002	Animal Population Dynamics	10	10		H	
BIO3003	Ecological Modelling	10	10		H	
BIO3006	Plant-Animal Interactions	10		10	H	
BIO3012	Conservation Biology Issues	10		10	H	
BIO3019	Genomics	10	10		H	
BIO3024	Zoology Overseas§	10	10		H	
MST3002	Marine Systems Ecology	10	10		H	

*** Note: BIO3024 Zoology Overseas will include work during the summer vacation preceding Stage 3.**

With the approval of the Degree Programme Director alternative optional modules to those listed above may be selected.

4. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

5. Degree classification

Candidates will be assessed for degree classification on the basis of all the modules taken at Stages 2 and 3 with the weighting of the stages being 1:3 for Stage 2 and Stage 3 respectively.

13 Criteria for admission

Entrance Requirements

A Levels

ABB normally including Biology and another science subject but excluding General Studies. Chemistry is preferred at A or AS level, but not essential. GCSE Mathematics (minimum grade B) required if not offered at A or AS level.

Scottish Qualifications

AAAB at Higher Grade including two science subjects. Advanced Higher Biology and another science subject normally required. Higher Grade Chemistry desirable.

International Baccalaureate

32-35 points normally including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.

Irish Leaving Certificate

AABBB at Higher level, preferably including Biology and Chemistry.

Access Qualifications

A module in Biological Sciences is essential and modules in Chemistry, Mathematics or Quantitative Methods desirable (three modules at Distinction/Credit grade for HEFC).

BTEC National Diploma

A science-related subject with substantial biology and chemistry units at overall DDM grade.

Please Note that unless otherwise indicated, all candidates with qualifications other than those specifically listed are considered on an individual basis. Please refer to Entrance Requirements for a full explanation.

14 Support for Student Learning

Induction
During the first week of the first semester students attend an induction programme. New students will be given a general introduction to University life and the University's principle support services and general information about the School and their programme, as described in the Degree Programme Handbook. New and continuing students will be given detailed programme information and the timetable of lectures/practicals/labs/tutorials, etc. The International Office offers an additional induction programme for overseas students.

Study skills support
Students will learn a range of Personal Transferable Skills, including Study Skills, as outlined in the Programme Specification. Some of this material, e.g. time management is covered in the appropriate Induction Programme. Students are explicitly tutored on their approach to both group and individual projects.

Numeracy support is available through Maths Aid.

Help with academic writing is available from the Writing Centre.

Academic support
The initial point of contact for a student is with a lecturer or module leader, or their tutor (see below) for more generic issues. Thereafter the Degree Programme Director or Head of School may be consulted. Issues relating to the programme may be raised at the Staff-Student Committee, and/or at the Board of Studies.

Pastoral support
All students are assigned a personal tutor whose responsibility is to monitor the academic performance and overall well-being of their tutees. In addition the University offers a range of support services, including one-to-one counselling and guidance or group sessions/workshops on a range of topics, such as emotional issues eg. Stress and anxiety, student finance and budgeting, disability matters etc. There is specialist support available for students with dyslexia and mental health issues. Furthermore, the Union Society operates a Student Advice Centre, which can provide advocacy and support to students on a range of topics including housing, debt, legal issues etc.

Support for students with disabilities
The University's Disability Support Service provides help and advice for disabled students at the University - and those thinking of coming to Newcastle. It provides individuals with: advice about the University's facilities, services and the accessibility of campus; details about the technical support available; guidance in study skills and advice on financial support arrangements; a resources room with equipment and software to assist students in their studies.

Learning resources
The University's main learning resources are provided by the Robinson and Walton Libraries (for books, journals, online resources), and Information Systems and Services, which supports campus-wide computing facilities.

All new students whose first language is not English are required to take an English Language Proficiency Test. This is administered by INTO Newcastle University Centre on behalf of Newcastle University. Where appropriate, in-sessional language training can be provided. The INTO Newcastle University Centre houses a range of resources which may be particularly appropriate for those interested in an Erasmus exchange.

15 Methods for evaluating and improving the quality and standards of teaching and learning

Module reviews
All modules are subject to review by questionnaires which are considered by the Board of Studies. Changes to, or the introduction of new, modules are considered at the School Teaching and Learning Committee and at the Board of Studies. Student opinion is sought at the Staff-Student Committee and/or the Board of Studies. New modules and major changes to existing modules are subject to approval by the Faculty Teaching and Learning Committee.

Programme reviews
The Board of Studies conducts an Annual Monitoring and Review of the degree programme and reports to Faculty Teaching and Learning Committee.

External Examiner reports
External Examiner reports are considered by the Board of Studies. The Board responds to these reports through Faculty Teaching and Learning Committee. External Examiner reports are shared with institutional student representatives, through the Staff-Student Committee.

Student evaluations
All modules, and the degree programme, are subject to review by student questionnaires. Informal student evaluation is also obtained at the Staff-Student Committee, and the Board of Studies. The National Student Survey is sent out every year to final-year undergraduate students, and consists of a set of questions seeking the students' views on the quality of the learning and teaching in their HEIs. With reference to the outcomes of the NSS and institutional student satisfaction surveys actions are taken at all appropriate levels by the institution.

Mechanisms for gaining student feedback
Feedback is channelled via the Staff-Student Committee and the Board of Studies.

Faculty and University Review Mechanisms
The programme is subject to the University's Internal Subject Review process. Every five years degree programmes in each subject area are subject to periodic review. This involves both the detailed consideration of a range of documentation, and a two-day review visit by a review team which includes an external subject specialist in addition to University and Faculty representatives. Following the review a report is produced, which forms the basis for a decision by University Teaching and Learning Committee on whether the programmes reviewed should be re-approved for a further five year period.

16 Regulation of assessment

Pass mark
The pass mark is 40 (Undergraduate programmes)

Course requirements
Progression is subject to the University's Undergraduate Progress Regulations and Undergraduate Examination Conventions. In summary, students must pass, or be deemed to have passed, 120 credits at each Stage. Limited compensation up to 40 credits and down to a mark of 35 is possible at each Stage and there are resit opportunities, with certain restrictions.

Weighting of stages
The marks from Stages 2 and 3 will contribute to the final classification of the degree
The weighting of marks contributing to the degree for Stages 2 and 3 is 25:75

Common Marking Scheme
The University employs a common marking scheme, which is specified in the Undergraduate Examination Conventions, namely

	Modules used for degree classification (DC)	**Modules not used for degree classification**
<40	Fail	Failing
40-49	Third Class	Basic
50-59	Second Class, Second Division	Good
60-69	Second Class, First Division	Very Good
70+	First Class	Excellent

The University employs a common marking scheme, which is specified in the Taught Postgraduate Examination Conventions, namely:

Role of the External Examiner
An External Examiner, a distinguished member of the subject community, is appointed by Faculty Teaching and Learning Committee, after recommendation from the Board of Studies. The External Examiner is expected to:

- See and approve examination papers
- Moderate examination and coursework marking
- Attend the Board of Examiners
- Report to the University on the standards of the programme

In addition, information relating to the programme is provided in:

The University Prospectus (see http://www.ncl.ac.uk/undergraduate/

The School Brochure (contact enquiries@ncl.ac.uk)

The University Regulations (see http://www.ncl.ac.uk/calendar/university.regs/)

The Degree Programme Handbook

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

Annex

Mapping of Intended Learning Outcomes onto Curriculum/Modules

Code	Type	A	B	C	D
Stage 1					
ACE1013	**Compulsory**	**1**			
ACE1019	**Compulsory**	**1,3**		**2**	
BIO1001	**Compulsory**	**1**		**2**	
BIO1002	**Compulsory**	**1,2**		**2**	
BIO1003	**Compulsory**	**5**		**2**	
BIO1004	**Compulsory**	**5**		**2**	
BIO1005	**Compulsory**	**1,2**			
BIO1006	**Compulsory**	**1,4**		**2**	
MAS1401	**Compulsory**	**6**			
MST1001	*Optional*	*1,2,5*			
PSY1006	*Optional*	*5*			
PSY1009	*Optional*	*5*			
Stage 2					
BIO2001	**Compulsory**	**6,**	**4**	**1**	**1,2,4**
BIO2002	**Compulsory**	**4,7**			
BIO2003	**Compulsory**	**2**		**2**	
BIO2007	**Compulsory**	**2**			
BIO2008	**Compulsory**	**2**	**3**		
BIO2009	**Compulsory**	**4**			
BIO2010	**Compulsory**	**1**			
BIO2013	**Compulsory**	**3**	**2**	**2,3**	
BIO2014	**Compulsory**	**3**	**2**	**2,3**	
MST2010	**Compulsory**	**1**			
ACE2031	*Optional*	*1*			
BIO2006	*Optional*	*1,2*			
MST2001	*Optional*	*5*			
MST2009	*Optional*	*5*			
PSY2007	*Optional*	*5*			
NCL2001/2002	*Optional*				*1,3-6*
Stage 3					
BIO3001	**Compulsory**	**3**			
BIO3014	**Compulsory**	**1,2**			
BIO3015	**Compulsory**	**7**		**1**	**1,6**
BIO3016	**Compulsory**	**1,3**			
BIO3022	**Compulsory**	**6**	**2,3,5**	**2,3,4**	**3,5**
BIO3095	**Compulsory**		**1,2,3,4,5**	**1,2,3,4**	**2,3,4,5**
BIO3096	**Compulsory**		**1,2,3,4,5**	**1,2,3,4**	**2,3,4,5**
ACE3049	*Optional*	3,7			
BIO3002	*Optional*	*1,4*			
BIO3003	*Optional*	*1,4*	*3*		*1,2,4*
BIO3006	*Optional*	*1,4*			
BIO3012	*Optional*	*4,7*			
BIO3019	*Optional*	*1,5*			
BIO3024	*Optional*	*7*	*1,4*	*1*	*2,4,6*
MST3002	*Optional*	*5*			