

School of Biology

B.Sc. Honours

The general requirements are 480 credits over a period of normally four years (and not more than five years) or part-time equivalent, of which the final two years form an approved Honours programme of 240 credits, of which 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 levels.

B.Sc. Honours with Integrated Year Abroad

The general requirements are 540 credits over a period of normally five years (and not more than six years) or part-time equivalent, of which the final three years are an approved Honours programme of 300 credits, of which 60 credits are gained during the integrated year abroad, 90 credits are at 4000 level and at least a further 120 credits at 3000 and/or 4000 levels.

Study Abroad: In the case of students who spend part of the Honours programme on a recognised Study Abroad scheme, the Programme Requirements will be amended to take into account overseas courses which are approved by the relevant St Andrews School in the Learning Agreement.

(see <http://www.st-andrews.ac.uk/studyabroad/outgoingstudents/AcademicInformation/>).

Other information: With the permission of the Director of Teaching up to 20 credits per programme may be taken in a module outwith the specified modules in the above Programmes. Entry to the Honours programme is at the discretion of the Director of Teaching, but is automatically granted for students gaining at least grade 11 in two of the prerequisite second year modules. Those who, at their first attempt, earn a minimum aggregate of 35 grade points from 2000-level Biology modules will also be considered for entry. Where there are choices between modules in the programmes that follow, some options may have pre-requisites so that choices may be limited by the Pre-honours modules taken. *The availability of 4000-level modules in the School of Biology will be dependent on sufficient student demand.*

Behavioural Biology – Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2102 and BL2105 - with passes at grade 11 or better in both.
Third Year:	10 credits: BL3000 or BL3321; 50 credits: BL3307 and BL3319 and BL3320; 60 credits in three of: BL3302, BL3308, BL3309, BL3313, BL3315, BL3316, BL3318.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL3400, BL4232, BL4234, BL4235, BL4256, BL4258, BL4263, BL4280 - BL4286, (one of BL4291, BL4292, ID4001), to a total of between 120 and 125 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

Biochemistry - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2101 and BL2104 - with passes at grade 11 or better in both.
Third Year:	80 credits: BL3301 and BL3302 and BL3303 and BL3310; 40 credits in two of: BL3311 - BL3313.
Fourth Year:	15 credits: BL4210; At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL4211 - BL4216, BL4221 - BL4224, BL4230, BL4273, (one of BL4220, BL4255, BL4291, BL4292, ID4001) to a total of 120 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

Biology - Programme Requirements 2012/13 - October 2012

Biology – Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits in two of: BL2000 - BL2199 - with passes at grade 11 or better in both.
Third Year:	10 credits: BL3320; 10 credits: BL3000 or BL3321; 100 further credits in five of: BL3000 - BL3399, as approved by the Degree Controller and Director of Teaching.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL3400, BL4210 - BL4289, (one of BL4291, BL4292, ID4001), as approved by the Degree Controller and Director of Teaching, to a total of between 120 and 125 credits for the year.

Biology - Joint Honours B.Sc.

Biology and one of: Economics, Geology, Mathematics, Psychology, Statistics

Biology element of Biology - Joint Honours B.Sc. (except those defined below):

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits in two of: BL2000 - BL2199 - with passes at grade 11 or better in both.
Third Year:	10 credits: BL3320; 10 credits: BL3000 or BL3321; 40 further credits in two of: BL3000 - BL3399, as approved by the Degree Controller and Director of Teaching.
Fourth Year:	Between 60 and 65 credits in four of: BL3400, BL4000 - BL4289, (one of BL4291, BL4292, ID4001).

Biology and Geology - Joint Honours B.Sc.

First Year:	80 credits: BL1101 and BL1102 and ES1001 and ES1002
Second Year:	120 credits: BL2102 and BL2105 and ES2001 and ES2002 - with passes at 11 or better in all. (Including participation on the 2 nd year Earth Sciences field course).
Third Year:	80 credits: BL3000 and BL3320 and ES3001 and ES3004 and ES3008 and ES3005 40 credits in two of: BL3307, BL3308, BL3316, BL3309, BL3318, BL3319.
Fourth Year:	75 credits: BL4220 and ES4002 and ID4442. 15 credits: ES3007 or ES3009 or ES4007 or ID4001. 30 further credits in two of: BL4249, BL4254 - BL4256, BL4260, BL4262, BL4266, BL4268, BL4270, BL4272, BL4275, BL4280, BL4286, BL4301, ID4001.

Biology element of Biology and Logic & Philosophy of Science - Joint Honours B.Sc.:

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits in two of: BL2000 - BL2199 - with passes at grade 11 or better in both.
Third Year:	10 credits: BL3320; 10 credits: BL3000 or BL3321; 40 further credits in two of: BL3000 - BL3399, as approved by the Degree Controller and Director of Teaching.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL3400, BL4000 - BL4289, BL4291, BL4292, ID4001, if necessary, to a total of between 60 and 65 credits in Biology for the Year.

Biology - Joint Honours B.Sc. (continued)

Biology element of Biology and Mathematics/Statistics - Joint Honours B.Sc.:

First Year: 40 credits: BL1101 and BL1102.
 Second Year: 60 credits in two of: BL2000 - BL2199 - with passes at grade 11 or better in both.
 Third Year: 10 credits: BL3320;
 Between 30 and 60 further credits: BL3000 - BL3399, as approved by the Degree Controller and Director of Teaching.
 Fourth Year: At least 45 credits: BL4200 or BL4201 or BL4202;
 Further credits: BL3400, BL4210 - BL4289, (one of BL4291, BL4292, ID4001) if necessary, to a total of at least 60 credits for the year and between 105 and 135 credits across Third and Fourth Years.

Biology element of Biology and Psychology (with BPS recognition) - Joint Honours B.Sc.:

First Year: 40 credits: BL1101 and BL1102.
 Second Year: 60 credits in two of: BL2000 - BL2199 - with passes at grade 11 or better in both.
 Third Year: 10 credits: BL3320;
 Between 30 and 40 further credits: BL3000 - BL3399, as approved by the Degree Controller and Director of Teaching.
 Fourth Year: At least 45 credits: BL4210 - BL4289, (one of BL4291, BL4292, ID4001), as approved by the Degree Controller.
 In total, 240 credits must be achieved at 3000 and 4000 level, including at least 90 credits at 4000 level.

Biology 'with'... - Honours B.Sc.

Biology with one of: Arabic, French

Biology Major element of B.Sc. Honours Biology with a Modern Language:

First Year: 40 credits: BL1101 and BL1102.
 Second Year: 60 credits in two of: BL2000 - BL2199 - with passes at grade 11 or better in both.
 Third Year: 10 credits: BL3320;
 10 credits: BL3000 or BL3321;
 80 further credits in four of: BL3000 - BL3399.
 Fourth Year: At least 45 credits: BL4200 or BL4201 or BL4202;
 20 further credits: BL3000 - BL3400;
 Further credits: BL4210 - BL4289, (one of BL4291, BL4292, ID4001) if necessary, to a total of 80 credits for the year.
 In total, 240 credits must be achieved at 3000 and 4000 level, including at least 90 credits at 4000 level.

... 'with' Biology - Honours B.Sc.

Psychology with Biology

Biology minor element of Psychology with Biology - Honours B.Sc.:

First Year: 40 credits: BL1101 and BL1102.
 Second Year: 60 credits: BL2000 - BL2199 - with passes at grade 11 or better in both.
 Third Year: Between 20 and 40 credits: BL3000 - BL3399 as approved by the Degree Controller and Director of Teaching.
 Fourth Year: At least 30 credits: BL4210 - BL4289, to a total of between 60 and 80 credits from BL modules across Third and Fourth Years.
 In total, 240 credits must be achieved at 3000 and 4000 level, including at least 90 credits at 4000 level.

Biology - Programme Requirements 2012/13 - October 2012

Biomolecular Science - Single Honours B.Sc.

First Year:	80 credits: BL1101 and BL1102 and CH1401 and CH1601.
Second Year:	120 credits: BL2101 and BL2104 and CH2501 and CH2601 - with passes at grade 11 or better in all.
Third Year:	120 credits: BL3301 and BL3310 and BL3312 and CH3431 and CH3612 and CH3613 and CH3615 and CH3621 and CH3716.
Fourth Year:	55 credits: BL4210 and CH4442; 45 credits in three of: BL4212, BL4213, BL4215, BL4216, BL4222, BL4223; 20 credits in two of: CH4612, CH4613, CH4614, CH5611, CH5612, CH5613, CH5614, CH5616. <i>Alternatively, by special arrangement only:</i> 75 credits: BL4201 and BL4210; 50 credits in five of: CH4612, CH4613, CH4614, CH5611, CH5612, CH5613, CH5614, CH5616.

This programme is accredited by the Royal Society of Chemistry (RSC) for professional membership.

Biomolecular Science - Single Honours B.Sc.

Direct entry to second year for approved candidates with 120 advanced standing credits

Second Year:	10 credits: CH1202; 120 credits: BL2101 and BL2104 and CH2501 and CH2601 - with passes at grade 11 or better in all.
Third Year:	120 credits: BL3301 and BL3310 and BL3312 and CH3431 and CH3612 and CH3613 and CH3615 and CH3621 and CH3716.
Fourth Year:	55 credits: BL4210 and CH4442; 45 credits in three of: BL4212, BL4213, BL4215, BL4216, BL4222, BL4223; 20 credits in two of: CH4612, CH4613, CH4614, CH5611, CH5612, CH5613, CH5614, CH5616. <i>Alternatively, by special arrangement only:</i> 75 credits: BL4201 and BL4210; 50 credits in five of: CH4612, CH4613, CH4614, CH5611, CH5612, CH5613, CH5614, CH5616.

This programme is accredited by the Royal Society of Chemistry (RSC) for professional membership.

Cell Biology - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2101 and BL2104 - with passes at grade 11 or better in both.
Third Year:	40 credits: BL3302 and BL3303; 20 credits: BL3301 or (BL3320 with BL3321); 60 credits in three of: BL3310 - BL3313, BL3315.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL4210*, BL4211 - BL4216, BL4220, BL4221, BL4223, BL4224, BL4230 - BL4234, BL4273, (one of BL4291, BL4292, ID4001) to a total of 120 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

**BL4210 should normally be taken by any student whose project supervisor is in the Biomedical Sciences Research Complex (BSRC).*

Ecology & Conservation - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2102 and BL2105 - with passes at grade 11 or better in both.
Third Year:	80 credits: BL3000 and BL3307 and BL3308 and BL3309 and BL3320; 40 credits in two of: BL3316, BL3318, BL3319.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL3400, BL4220, BL4249, BL4251, BL4254, BL4255, BL4257 - BL4260, BL4265 - BL4273, BL4275, BL4282, BL4285, BL4286; (one of BL4291, BL4292, ID4001) to a total of between 120 and 125 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 – BL4700, with the permission of the Degree Controller and Director of Teaching.

Environmental Biology - Joint Honours B.Sc.

Environmental Biology and either Environmental Geoscience or Geography	
Environmental Biology and Environmental Geoscience - Joint Honours B.Sc.:	
Third Year:	80 credits: BL3000 and BL3320 and ES3001 and ES3004 and ES3008 and ES3005 40 credits in two of: BL3307, BL3308, BL3309, BL3316, BL3318, BL3319.
Fourth Year:	75 credits: BL4220 and ES4002 and ID4442. 15 credits: ES3007 or ES3009 or ES4007 or ID4001. 30 further credits in two of: BL4249, BL4254 - BL4256, BL4260, BL4262, BL4266, BL4268, BL4270, BL4272, BL4275, BL4280, BL4286, BL4301, ID4001.
Environmental Biology element of Environmental Biology and Geography -Joint Honours B.Sc.:	
First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2102 and BL2105 - with passes at grade 11 or better in both.
Third Year:	10 credits: BL3320; Between 50 and 60 credits: BL3000, BL3307 - BL3309, BL3316, BL3318, BL3319.
Fourth Year:	Between 60 and 65 credits: BL3400, BL4220, BL4251, BL4260, BL4265 - BL4275, BL4277, BL4286, (one of BL4291, BL4292, ID4001), except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.
In total, 240 credits must be achieved at 3000 and 4000 level, including at least 90 credits at 4000 level.	

Biology - Programme Requirements 2012/13 - October 2012

Evolutionary Biology - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2102 and BL2105 - with passes at grade 11 or better in both.
Third Year:	30 credits: BL3307 and BL3320; 10 credits: BL3000 or BL3321; 80 credits in four of: BL3302, BL3308, BL3309, BL3313, BL3315, BL3316, BL3318, BL3319.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL3400, BL4251, BL4272 - BL4275, BL4280, BL4282, BL4284, BL4286, (one of BL4291, BL4292, ID4001) to a total of between 120 and 125 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

Marine Biology - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2102 and BL2105 - with passes at grade 11 or better in both. 60 further credits in two of: BL2000 - BL2199.
Third Year:	60 credits: BL3000 and BL3308 and BL3318 and BL3320; 60 credits in three of: BL3307, BL3309, BL3313, BL3315, BL3316, BL3319.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; 45 credits in three of: BL4249 - BL4263; Up to 15 credits: BL4248, BL4264 - BL4269, BL4273, BL4274, BL4281, BL4286; Up to 15 credits: BL4291, BL4292, BL4301, ID4001; Further credits: BL4249 - BL4263 if necessary, to a total of 120 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

Molecular Biology - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2101 and BL2104 - with passes at grade 11 or better in both.
Third Year:	100 credits: BL3301 and BL3302 and BL3303 and BL3310 and BL3311; 20 credits: BL3312 or BL3315.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; 15 credits: BL4210; Further credits: BL4211 - BL4216, BL4221, BL4223, BL4224, BL4230, (one of BL4219, BL4220, BL4255, BL4273, BL4291, BL4292, ID4001), to a total of 120 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

Neuroscience - Single Honours B.Sc.

First Year:	80 credits: BL1101 and BL1102 and PS1001 and PS1002.
Second Year:	90 credits: BL2101 and PS2001 and PS2002 - with passes at grade 11 or better; 30 credits: BL2104 or BL2106 - with a pass at grade 11 or better.
Third Year:	80 credits: BL3303 and BL3313 and PS3032 and PS3035 and PS3037 and , normally PS3038. Between 30 and 40 further credits: BL3000 - BL3399, PS3000 - PS3999, PS4040, with the approval of the Degree Controller.
Fourth Year:	At least 30 credits: BL4200 or BL4201 or PS4299; Further credits: BL4000 - BL4199, BL4203 - BL4289, (one of BL4291, BL4292, ID4001), PS4060 - PS4999, with the approval of the Degree Controller, to a total of 240 credits across Third and Fourth Years.

Zoology - Single Honours B.Sc.

First Year:	40 credits: BL1101 and BL1102.
Second Year:	60 credits: BL2102 and BL2106 - with passes at grade 11 or better in both.
Third Year:	20 credits: BL3000 and BL3320; 100 credits in five of: BL3302, BL3307 - BL3309, BL3311, BL3313, BL3315, BL3316, BL3318, BL3319.
Fourth Year:	At least 45 credits: BL4200 or BL4201 or BL4202; Further credits: BL3400, BL4230 - BL4235, BL4247 - BL4251, BL4256 - BL4260, BL4263, BL4265 - BL4268, BL4272 - BL4277, BL4280 - BL4282, BL4284 - BL4286, BL4290, BL4301, (one of BL4291, BL4292, ID4001), to a total of between 120 and 125 credits for the year, except that 15 of these credits may be taken from another module in the range BL4210 - BL4700, with the permission of the Degree Controller and Director of Teaching.

Students still completing degree programmes as defined in previous Course Catalogues should discuss their module selections with their Honours Adviser(s).