

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.

MBiochem

The general requirements are 600 credits over a period of normally five years to include a period of placement in the fourth year approved by the School of Biology.

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 all School of Biology 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. Where there are choices between modules in the programmes, some options may have pre-requisites therefore the Pre-honours modules taken may limit choices. *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; 70 credits: BL3309 and BL3318 and BL3319 and BL3320; 40 credits in two of: BL3301, BL3302, BL3307, BL3308, PN3313, BL3316.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL3400, BL4232, BL4256, BL4258, BL4263, BL4280 - BL4286, PN4234, PN4235, ID4001, to a total of between 120 credits and 125 credits for the year.

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 BL3310 and BL3320 and BL3322; 40 credits in two of: BL3303, BL3311, PN3312.
Fourth Year:	15 credits: BL4210; At least 30 credits: BL4200 or BL4201; Further credits: BL4211 - BL4216, BL4222, BL4223, BL4224, PN4230, BL4273, (one of BL4220, BL4255, ID4001) to a total of 120 credits for the year.

Biology - Programme Requirements 2013/14 - August 2013

Biochemistry - Single Honours M.Biochem.

First Year:	80 credits: BL1101 and BL1102 and CH1401 and CH1601 (except that the Chemistry requirement may be waived for students admitted before 2014/15 at the discretion of the Director of Teaching or Degree Programme Controller).
Second Year:	60 credits: BL2101 and BL2104 (further credits from BL and CH modules recommended), with a mean grade of 15 or better in 2000-level BL modules.
Third Year:	100 credits: BL3301 and BL3302 and BL3310 and BL3311 and BL3320 and BL3322; 20 credits in one of: BL3303, PN3312.
Fourth Year :	120 credits BL4601 and BL4602.

Biochemistry - Single Honours M.Biochem.

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

Second Year:	60 credits: BL2101 and BL2104 (further credits from BL and CH modules recommended), with a mean grade of 15 or better in 2000-level BL modules.
Third Year:	100 credits: BL3301 and BL3302 and BL3310 and BL3311 and BL3320 and BL3322; 20 credits in one of: BL3303, PN3312.
Fourth Year :	120 credits BL4601 and BL4602.

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 or BL3322; 100 further credits in five of: BL3301 - BL3319, PN3312, PN3313, as approved by the Degree Controller and Director of Teaching.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL3400, BL4210 - BL4301, ID4001, PN4230, PN4231, PN4234, PN4235, to a total of between 120 and 125 credits for the year.

Biology - Joint Honours B.Sc.

Biology and one of: Economics, Geography, Geology, Logic and Philosophy of Science, 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 or BL3322; 40 further credits in two of: BL3301 - BL3319, PN3312, PN3313 as approved by the Degree Controller and Director of Teaching.
Fourth Year:	Between 60 and 65 credits taken from BL3400, BL4210 - BL4289, ID4001, PN4230, PN4231, PN4234, PN4235.

Biology - Joint Honours B.Sc. (continued)	
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, PN3312, PN3313.
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, BL4275, BL4280, BL4286, BL4301, ID4001.
Biology element of Biology and Logic and 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 or BL3322; 40 further credits in two of: BL3301 - BL3319, PN3312, PN3313 as approved by the Degree Controller and Director of Teaching.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL3400, BL4210 - BL4301, ID4001, PN4230, PN4231, PN4234, PN4235, if necessary, to a total of between 60 and 65 credits in Biology for the Year.
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 - BL3319, PN3312, PN3313 as approved by the Degree Controller and Director of Teaching.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL3400, BL4210 - BL4301, ID4001, PN4230, PN4231, PN4234, PN4235 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: BL3301 - BL3319, PN3312, PN3313 as approved by the Degree Controller and Director of Teaching.
Fourth Year:	At least 45 credits: BL4210 - BL4301, ID4001, PN4230, PN4231, PN4234, PN4235 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 - Programme Requirements 2013/14 - August 2013

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

Biology with one of: Arabic, French, French (WIYA)

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 or BL3322;

80 further credits in four of: BL3301 - BL3319. PN3312 or PN3313

Fourth Year: At least 30 credits: BL4200 or BL4201;

20 further credits: BL3000 - BL3400;

Further credits: BL3301 - BL3319, BL3400, BL4210 - BL4301, ID4001, PN3312, PN3313, PN4230, PN4231, PN4234, PN4235 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 - BL4301, 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.

Biomolecular Science - Single Honours B.Sc. entry through School of Chemistry

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 CH3431 and CH3612 and CH3613 and CH3615 and CH3621 and CH3716 and PN3312.

Fourth Year: 65 credits: BL4210 and CH4442;

45 credits in three of: BL4212, BL4213, BL4215, BL4216, BL4222, BL4223;

10 credits in one of: CH4612, CH4614, CH4615, CH5611, CH5612, CH5613, CH5614, CH5616.

Alternatively, by special arrangement only:

75 credits: BL4201 and BL4210;

50 credits in five of: CH4612, CH4614, CH4615, CH5611, CH5612, CH5613, CH5614, CH5616.

Other information: This course does not have RSC accreditation

Biomolecular Science - Single Honours B.Sc. entry through School of Chemistry

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** CH3431 **and** CH3612 **and** CH3613 **and** CH3615 **and** CH3621 **and** CH3716 and PN3312.

Fourth Year: 65 credits: BL4210 **and** CH4442;
45 credits in three of: BL4212, BL4213, BL4215, BL4216, BL4222, BL4223;
10 credits in two of: CH4612, CH4614, CH4615, CH5611, CH5612, CH5613, CH5614, CH5616.

Alternatively, by special arrangement only:
75 credits: BL4201 **and** BL4210;
50 credits in five of: CH4612, CH4614, CH4615, CH5611, CH5612, CH5613, CH5614, CH5616.

Other information: This course does not have RSC accreditation

Biology - Programme Requirements 2013/14 - August 2013

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:	50 credits: BL3302 and BL3303 and BL3320; 10 credits: BL3321 or BL3322; 60 credits in three of: BL3301, BL3310, BL3311, BL3315, PN3312, PN3313.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL4210*, BL4211 - BL4216, BL4220, BL4223, BL4224, , BL4232, BL4270, BL4273, BL4274, BL4275, ID4001, PN4234, PN4230, PN4231, PN4235, to a total of 120 credits for the year.

**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 BL3318 and BL3309 and BL3319 and BL3320; 40 credits in two of: BL3307, BL3308, BL3316.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL3400, BL4220, BL4249, BL4251, BL4254, BL4255, BL4257, BL4258 - BL4262, BL4266 - BL4273, BL4275, BL4282, BL4285, BL4286; BL4301, ID4001 to a total of between 120 and 125 credits for the year.

Environmental Biology and Environmental Geoscience - Joint Honours B.Sc.

Not available to entrants from 2011-12 onwards

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.

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, BL3315, BL3316, BL3318, BL3319, PN3313.
 Fourth Year: At least 30 credits: BL4200 **or** BL4201;
 Further credits: BL3400, BL4251, BL4273 - BL4275, BL4278, BL4280, BL4282, BL4284, BL4286, ID4001 to a total of between 120 and 125 credits for the year.

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: 100 credits: BL3000 **and** BL3307 **and** BL3308 **and** BL3309 **and** BL3318 **and** BL3320;
 20 credits in one of: BL3315 **or** BL3319.
 Fourth Year: At least 30 credits: BL4200 **or** BL4201;
 45 credits in three of: BL4249 - BL4263;
 Up to 15 credits: BL4248, BL4266 - BL4268, BL4273, BL4274, BL4281, BL4286; BL4301, ID4001;
 Further credits: BL3400, BL4249 - BL4263 if necessary, to a total of between 120 and 125 credits for the year.

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: 80 credits: BL3301 **and** BL3302 **and** BL3311 **and** BL3320 **and** BL3322;
 40 credits in two of BL3303 **or** BL3310 **or** PN3312.
 Fourth Year: At least 30 credits: BL4200 **or** BL4201;
 15 credits: BL4210;
 Further credits: BL4211 - BL4216, BL4223, BL4224, PN4230, (one of BL4220, BL4255, BL4273, ID4001), to a total of 120 credits for the year.

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Neuroscience - Single Honours B.Sc. entry through the School of Psychology & Neuroscience

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:	60 credits: PN3312 and PN3313 and PS3035 and PS3037. 20 credits: BL3303 or BL3319. 20 credits: (PS3032 or PS3036) and (PS3034 or PS3033) 20 credits: BL3320 and BL3321. Other 3000-level modules in Biology or Psychology & Neuroscience may be substituted with the approval of the Degree Controller.
Fourth Year:	At least 30 credits: BL4200 or BL4201 or PN4299; Further credits: BL4210 - BL4289, ID4001, PS4060 - PS4999, with the approval of the Degree Controller, to a total of 120 credits across Fourth Year.

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, BL3315, BL3316, BL3318, BL3319, PN3313.
Fourth Year:	At least 30 credits: BL4200 or BL4201; Further credits: BL3400, PN4230, PN4231, BL4232, PN4234, PN4235, BL4248 - BL4251, BL4256 - BL4260, BL4263, BL4266 - BL4268, BL4273 - BL4275, BL4278, BL4280 - BL4282, BL4284 - BL4286, BL4301, ID4001, to a total of between 120 and 125 credits for the year.

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