

## School of Biology

### Entry to Honours

Students who attain an average of grade 11.0 or above at the first sitting in TWO of the requisite 2000-level modules and who meet all other programme requirements will be given automatic offers of entry into Honours programmes\*.

\*Apart from students on Integrated Masters degrees.

Students permitted automatic entry to Honours will only be permitted to trail one module to a maximum of 30 Sub-Honours

credits into Honours.

This School also allows 'Qualified Entry to Honours' as defined in: [Entry to Honours](#)

### BSc 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.

### BSc 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.

### Integrated Masters

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. Where there are choices between modules in the programmes, some options may have pre-requisites therefore the 1000- and 2000-level 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 BSc

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	60 credits: BL2102 <b>and</b> BL2105 - with an average grade of 11 or better
Third Year:	10 credits: BL3000 <b>or</b> BL3321; 70 credits: BL3309 <b>and</b> BL3318 <b>and</b> BL3319 <b>and</b> BL3320; 40 credits in two of: BL3301, BL3302, BL3307, BL3308, PN3313, BL3316.
Fourth Year:	At least 30 credits: BL4200 <b>or</b> BL4201; Further credits: BL3400, BL4232, BL4256, BL4258, BL4263, BL4280 - BL4286, PN4234, PN4235, ID4001, and may also include TWO of BL5440 and BL5441, to a total of between 120 credits and 125 credits for the year.

## Biology - Programme Requirements 2015/6 - August 2015

### Biochemistry - Single Honours BSc

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	60 credits: BL2101 <b>and</b> BL2104 - with an average grade of 11 or better.
Third Year:	80 credits: BL3301 <b>and</b> BL3302 <b>and</b> BL3310 <b>and</b> BL3320 <b>and</b> BL3322; 40 credits in two of: BL3303, BL3311, PN3312.
Fourth Year:	15 credits: BL4210; At least 30 credits: BL4200 <b>or</b> BL4201; Further credits: BL4211 - BL4216, BL4222, BL4223, BL4224, PN4230, BL4273, (one of BL4220, BL4255, ID4001) and may also include up to TWO of BL5420 and BL5421 to a total of 120 credits for the year.

### Biochemistry - Single Honours MBiochem

First Year:	80 credits: BL1101 <b>and</b> BL1102 <b>and</b> CH1401 <b>and</b> CH1601
Second Year:	60 credits: BL2101 <b>and</b> 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 <b>and</b> BL3302 <b>and</b> BL3310 <b>and</b> BL3311 <b>and</b> BL3320 <b>and</b> BL3322; 20 credits in one of: BL3303, PN3312.
Fourth Year:	120 credits: BL4601 <b>and</b> BL4602.
Fifth Year:	90 credits: BL5410 <b>and</b> BL5499 30 credits: from BL4211 - BL4216, BL4222, BL4223, BL4224, PN4230, BL4273, BL5420 and BL5421 (may include one of BL4220, BL4255, ID4001) to a total of 120 credits for the year.

### Biochemistry - Single Honours MBiochem

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

Second Year:	60 credits: BL2101 <b>and</b> 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 <b>and</b> BL3302 <b>and</b> BL3310 <b>and</b> BL3311 <b>and</b> BL3320 <b>and</b> BL3322; 20 credits in one of: BL3303, PN3312.
Fourth Year:	120 credits: BL4601 <b>and</b> BL4602.
Fifth Year:	90 credits: BL5410 <b>and</b> BL5499 30 credits: from BL4211-BL4216, BL4222, BL4223, BL4224, PN4230, BL4273, BL5420 and BL5421 (may include one of BL4220, BL4255, ID4001) to a total of 120 credits for the year.

**Biology – Single Honours MBiol**

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	120 credits: BL2101 <b>and</b> BL2102 <b>and</b> BL2105 <b>and</b> BL2106 - with a mean grade of 15 or better in all.
Third Year:	10 credits: BL3320; 10 credits: BL3000 <b>or</b> BL3321; 100 further credits in five of: BL3307, BL3308, BL3309, BL3315, BL3316, BL3318, BL3319;
Fourth Year:	120 credits: BL4601 <b>and</b> BL4602;
Fifth Year:	60 credits: Advanced quantitative methods and Preparation of scientific papers ( <i>module numbers to be confirmed</i> ) 30 credits: BL5440, BL5441 ( <i>additional modules to be confirmed Feb 2016</i> ) 30 credits: from BL4248, BL4249, BL4251, BL4254 BL4255, BL4256, BL4258, BL4259, BL4260, BL4262, BL4263, BL4266, BL4268, BL4270, BL4273, BL4274, BL4275, BL4278, BL4280, BL4281, BL4282, BL4284, BL4285, BL4286, BL4301 to a total of 120 credits for the year.

**Biology – Single Honours BSc**

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	60 credits in two of: BL2000 - BL2199 - with an average grade of 11 or better
Third Year:	10 credits: BL3320; 10 credits: BL3000 <b>or</b> BL3321 <b>or</b> 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 <b>or</b> BL4201; Further credits: BL3400, BL4210 - BL4301, ID4001, PN4230, PN4231, PN4234, PN4235, and may also include TWO of BL5440 and BL5441, to a total of between 120 and 125 credits for the year.

## Biology - Programme Requirements 2015/6 - August 2015

### Biology - Joint Honours BSc

**Biology and one of:** Economics, Geography<sup>E</sup>, Geology, Logic and Philosophy of Science<sup>L</sup>, Mathematics, Philosophy, Psychology, Statistics

<sup>E</sup> Also applies to Environmental Biology and Geography (not available to entrants from 2013/14)

<sup>L</sup> not available to entrants from 2015/16

#### **Biology element of Biology - Joint Honours BSc:**

First Year: 40 credits: BL1101 **and** BL1102.

Second Year: 60 credits in two of: BL2000 - BL2199 - with an average grade of 11 or better

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, BL4200, BL4201, BL4210 - BL4301, ID4001, PN4230, PN4231, PN4234, PN4235, as approved by the Degree Controller and Director of Teaching.

#### **Biology and Economics - Joint Honours BSc (in addition to above):**

Fourth Year: BL4200 **or** BL4201 **or** BL4302

#### **Biology and Geography - Joint Honours BSc (in addition to above):**

Fourth Year: GG4297 or GG4298 and may take BL4200 to a maximum of 60-credits in Fourth Year

#### **Biology and Mathematics - Joint Honours BSc (in addition to above):**

Fourth Year: 15 - 75 credits in at least one of: BL4200, BL4201, MT4599

#### **Biology and Philosophy - Joint Honours BSc (in addition to above):**

Fourth Year: BL4200 **or** BL4201 **or** PY4698 **or** PY4699

#### **Biology and Psychology - Joint Honours BSc (in addition to above):**

Fourth Year: BL4200 **or** BL4201 **or** PS4050

#### **Biology and Statistics - Joint Honours BSc (in addition to above):**

Fourth Year: 15 - 75 credits in at least one of: BL4200, BL4201, MT4599

#### **Biology and Geology - Joint Honours BSc**

First Year: 80 credits: BL1101 **and** BL1102 **and** ES1001 **and** ES1002

Second Year: 120 credits: BL2102 **and** BL2105 **and** ES2001 **and** ES2002 - with an average grade of 11 or better in all.

(Including participation on the 2<sup>nd</sup> year Earth Sciences field course).

Third Year: 80 credits: BL3000 **and** BL3320 **and** ES3001 **and** ES3004 **and** ES3008 **and** ES3011

40 credits in two of: BL3307, BL3308, BL3315, BL3316, BL3309, BL3318, BL3319, PN3312, PN3313.

Fourth Year: 75 credits: BL4220 **and** ES4002 **and** ID4442.

15 credits: ES3009 **or** ES4007 **or** ID4001 **or** ES5010.

30 further credits in two of: BL4249, BL4254 - BL4256, BL4260, BL4262, BL4266, BL4268, BL4270, BL4273, BL4274, BL4275, BL4278, BL4280, BL4286, BL4301, ID4001.

#### **Biology element of Biology and Psychology (with BPS recognition) - Joint Honours BSc:**

First Year: 40 credits: BL1101 **and** BL1102.

Second Year: 60 credits in two of: BL2000 - BL2199 - with an average grade of 11 or better.

Third Year: 10 credits: BL3320;

Between 30 and 40 further credits: BL3000 - BL3322, PN3312, PN3313 as approved by the Degree Controller and Director of Teaching.

Fourth Year: At least 45 credits: BL3400, 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 'with'... - Honours BSc**

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

**Biology Major element of BSc Honours Biology with a Modern Language:**

First Year: 40 credits: BL1101 **and** BL1102.  
 Second Year: 60 credits in two of: BL2000 - BL2199 - with an average grade of 11 or better  
 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: BL3301 - BL3319, BL3400, PN3312 or PN3313;  
 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 BSc**

**Psychology with Biology (with BPS recognition)**

**Biology minor element of Psychology with Biology - Honours BSc:**

First Year: 40 credits: BL1101 **and** BL1102.  
 Second Year: 60 credits: BL2000 - BL2199 - with an average grade of 11 or better  
 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: BL3400, BL4210 - BL4301, ID4001 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 BSc entry through School of Chemistry**

First Year: 80 credits: BL1101 **and** BL1102 **and** CH1401 **and** CH1601.  
 Second Year: 60 credits: BL2101 **and** BL2104 - with an average grade of 11 or better  
 60 credits: CH2501 **and** CH2601 - with an average of grade 11 or better.  
 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

## Biology - Programme Requirements 2015/6 - August 2015

### Biomolecular Science - Single Honours BSc entry through School of Chemistry

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

Second Year:	10 credits: CH1202; 60 credits: BL2101 <b>and</b> BL2104 - with an average grade of 11 or better 60 credits: CH2501 <b>and</b> CH2601 - with an average of grade 11 or better.
Third Year:	120 credits: BL3301 <b>and</b> BL3310 <b>and</b> CH3431 <b>and</b> CH3612 <b>and</b> CH3613 <b>and</b> CH3615 <b>and</b> CH3621 <b>and</b> CH3716 <b>and</b> PN3312.
Fourth Year:	65 credits: BL4210 <b>and</b> 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. <i>Alternatively, by special arrangement only:</i> 75 credits: BL4201 <b>and</b> BL4210; 50 credits in five of: CH4612, CH4614, CH4615, CH5611, CH5612, CH5613, CH5614, CH5616.

Other information: This course does not have RSC accreditation

### Cell Biology - Single Honours BSc

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	60 credits: BL2101 <b>and</b> BL2104 - with an average grade of 11 or better.
Third Year:	50 credits: BL3302 <b>and</b> BL3303 <b>and</b> BL3320; 10 credits: BL3321 <b>or</b> BL3322; 60 credits in three of: BL3301, BL3310, BL3311, BL3315, PN3312, PN3313.
Fourth Year:	At least 30 credits: BL4200 <b>or</b> BL4201; Further credits: BL4210*, BL4211 - BL4216, BL4220, BL4222, BL4223, BL4224, BL4232, BL4248, BL4270, BL4273, BL4274, BL4275, ID4001, PN4230, PN4231, PN4234, PN4235, and may also include up to TWO of BL5420 and BL5421 to a total of 120 credits for the year. <i>*BL4210 should normally be taken by any student whose project supervisor is in the Biomedical Sciences Research Complex (BSRC).</i>

### Ecology & Conservation - Single Honours BSc

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	60 credits: BL2102 <b>and</b> BL2105 - with an average grade of 11 or better.
Third Year:	80 credits: BL3000 <b>and</b> BL3309 <b>and</b> BL3318 <b>and</b> BL3319 <b>and</b> BL3320; 40 credits in two of: BL3307, BL3308, BL3316.
Fourth Year:	At least 30 credits: BL4200 <b>or</b> BL4201; Further credits: BL3400, BL4220, BL4249, BL4251, BL4254, BL4255, BL4258 - BL4262, BL4266 - BL4273, BL4275, BL4282, BL4285, BL4286, BL4301, ID4001 and may also include TWO of BL5440 and BL5441 to a total of between 120 and 125 credits for the year.

**Evolutionary Biology - Single Honours BSc**

First Year: 40 credits: BL1101 **and** BL1102.  
 Second Year: 60 credits: BL2102 **and** BL2105 - with an average grade of 11 or better.  
 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 and may also include TWO of BL5440 and BL5441 to a total of between 120 and 125 credits for the year.

**Marine Biology – Single Honours MMarBiol**

First Year: 40 credits: BL1101 **and** BL1102.  
 Second Year: 60 credits: BL2102 **and** BL2105 - with a mean grade of 15 or better in 2000-level BL modules.  
 Third Year: 80 credits: BL3000 **and** BL3308 **and** BL3309 **and** BL3318 **and** BL3320;  
 40 credits in two of: BL3307, BL3315, BL3316, BL3319, BL3400.  
 Fourth Year: 120 credits: BL4601 **and** BL4602;  
 Fifth Year: 60 credits: Advanced quantitative methods and Preparation of scientific papers (*module numbers to be confirmed*)  
 30 credits: BL5440, BL5441 (*additional modules to be confirmed Feb 2016*)  
 30 credits: from BL4249, BL4251, BL4254, BL4255, BL4256, BL4258, BL4259, BL4260, BL4262, BL4263, BL4301 to a total of 120 credits for the year.

**Marine Biology - Single Honours BSc**

First Year: 40 credits: BL1101 **and** BL1102.  
 Second Year: 60 credits: BL2102 **and** BL2105 - with an average grade of 11 or better.  
 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 and may also include BL5440 or BL5441;  
 Further credits: BL3400, BL4249 - BL4263 if necessary, to a total of between 120 and 125 credits for the year.

**Molecular Biology - Single Honours BSc**

First Year: 40 credits: BL1101 **and** BL1102.  
 Second Year: 60 credits: BL2101 **and** BL2104 - with an average grade of 11 or better.  
 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), and may also include up to TWO of BL5420 and BL5421 to a total of 120 credits for the year.

## Biology - Programme Requirements 2015/6 - August 2015

### Neuroscience - Single Honours BSc entry through the School of Psychology & Neuroscience

First Year:	80 credits: BL1101 <b>and</b> BL1102 <b>and</b> PS1001 <b>and</b> PS1002.
Second Year:	90 credits: BL2101 <b>and</b> PS2001 <b>and</b> PS2002 - with passes at grade 11 or better; 30 credits: BL2104 <b>or</b> BL2106 - with a pass at grade 11 or better.
Third Year:	60 credits: PN3312 <b>and</b> PN3313 <b>and</b> PS3035 <b>and</b> PS3037. 20 credits: BL3303 <b>or</b> 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: PN4299 <b>or</b> BL4200 <b>or</b> BL4201; At least 15 credits from PN4230 - PN4240; 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 BSc

First Year:	40 credits: BL1101 <b>and</b> BL1102.
Second Year:	60 credits: BL2102 <b>and</b> BL2106 - with an average grade of 11 or better.
Third Year:	20 credits: BL3000 <b>and</b> BL3320; 100 credits in five of: BL3302, BL3307 - BL3309, BL3311, BL3315, BL3316, BL3318, BL3319, PN3313.
Fourth Year:	At least 30 credits: BL4200 <b>or</b> BL4201; Further credits: BL3400, PN4230, PN4231, BL4232, PN4234, PN4235, BL4248 - BL4251, BL4256 - BL4260, BL4263, BL4266 - BL4268, BL4273 - BL4275, BL4278, BL4280 - BL4286, BL4301, ID4001 and may also include TWO of BL5440 and BL5441 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).**