Important information for
new undergraduate students
2019/20
A checklist is provided on page 13 – please use this to make sure you have done everything you need to do before coming to Bristol.

Website  https://www.bris.ac.uk/earthsciences/

https://twitter.com/UOBEarthscience

https://www.facebook.com/School-of-Earth-Sciences-Bristol-University-146277648746662/
BEFORE YOU ARRIVE - PREPARATION

1) Forms

- There are various forms in your information pack that you need to complete and return.
  - Introductory field trip reply form (all students)
  - Student declaration form (all students)
  - Learning support request form (if applicable)
  - First year optional unit choice form (Geology or Environmental Geoscience students only)

Please check the individual forms for dates by which you need to return them.

2) Important dates – please note in advance when you are expected to be in attendance

- **Monday 23rd September to Friday 20th December** – Autumn Term
  
  We do not have a half-term break but there is a change of pace part way through the term, when there will be day field trips. You are expected to be in Bristol for the whole of the term.

- **13th - 24th January 2020** - January exam period. **27th January – 29th March** – Spring Term
  
  You may or may not have exams in January but even if you don’t, there may be other forms of assessment and workshops in that period so you must make sure that you are in back in Bristol for the start of the exam period.

- **Easter** - there will be mandatory week-long field trips to Arran around Easter. The trips are arranged in two groups: Group 1 will be **23rd to 29th March**; Group 2 will be **29th March to 4th April**. Geophysics and Palaeontology & Evolution students will be in Group 2, other students will be told which group they are in approximately four weeks beforehand.

  Please note that the Group 2 trip is in first week of the Easter vacation.

- **20th April - 12th June 2020** - Summer Term – includes end-of-year exams between **18th May and 5th June**. Please also note that field trip units whose marks accrue to Year 2 take place in between first and second year, either directly after the summer exams or before the start of Welcome Week in 2020.

- **24th August - 4th September 2020** - Resit and supplementary exams. You must pass all your first year units in order to progress into the second year. In the event of you having failed units at the end of your first year or having been unable to sit exams because of illness, you will need to take exams during this time.

  You are strongly advised to make sure you can be back in Bristol by mid-August in case you have exams to take.

  Important dates, including term and vacation dates, can also be found on the University website: [http://www.bristol.ac.uk/university/dates/](http://www.bristol.ac.uk/university/dates/)

3) Clothing to bring with you

- You should make sure that you have warm outdoor clothing, walking boots and a full set of waterproofs with you for short field trips during term-time.

4) Maths Primer (Geology, Environmental Geoscience & Palaeontology and Evolution students)

- The Maths Primer enclosed in your information pack is the first stage in a quantitative skills learning programme that continues throughout your first term, when you will be taught the foundation skills you need to analyse and understand scientific data. It is absolutely essential that you work through the primer before you arrive, regardless of your level of maths qualification. There will be a test in Week 1 to assess your proficiency with basic algebra and this will include some content from the Maths Primer. The results of the test will identify students who will undertake additional algebra training during week 1, and will help us to ensure that our first year units are well matched to current school syllabuses.
INFORMATION FOR ALL NEW STUDENTS

5) Introductory field trip - Bristol Channel and the Mendip Hills

Each year the School runs a pre-registration residential field trip for first year students in an area relatively close to Bristol. This is not a compulsory part of your overall degree programme, but has in the past been attended and enjoyed by nearly all our new cohorts of students. There is no charge to you for the trip and its timing is designed to dovetail with the timetables for the opening of Halls of Residence and the subsequent Welcome Week. **You are asked to please complete and return the separate reply form to let us know whether or not you will be coming with us.**

The field trip has three aims:

1. **Social** for first year students to meet each other and some academic staff in a relaxed environment away from Bristol.

2. **Administrative** to familiarise new students with the way the University and School is organised, through some introductory talks. This will be covered further in the School's Induction programme (Wednesday 25th and Thursday 26th September).

3. **Educational** for new students to learn something of the geology and environmental issues on the Somerset Coast and more generally to recharge academic batteries ready for the course ahead, through a mixture of talks, visits and guided walks/discussion.

OUTLINE PROGRAMME FOR THE TRIP:

Friday 20th September

**2.00pm (14:00):** Please arrive at the School of Earth Sciences, Wills Memorial Building, with your luggage for the weekend, by 2pm (14:00).

**2.30pm (14:30):** Depart from the School.

**Evening:** Arrive at Kilve Court field centre ([http://www.kilvecourt.co.uk/our-centres/kilve-court/](http://www.kilvecourt.co.uk/our-centres/kilve-court/)) in time for dinner, after which there will be activities and a chance to socialise. Members of BUGGS (Bristol University Geology and Geoscience Society) will be with us.

Saturday 21st September - activities after breakfast will include:

- Field excursions
- Group activities based on observations in the field
- Social activities

Sunday 22nd September

Depart Kilve Court after breakfast, returning to Bristol around 2pm (14:00).
Field trip practicalities:

Travel and parking at the University

- The roads around the University are metered or restricted to resident-only parking, and University car parks are for permit holders only, so if you intend to bring a car you'll have to make arrangements with your Hall of Residence to leave it there, and allow time to get to the School ready for departure (it is approximately a 30 minute walk from the furthest Halls). Coach travel is provided from the School to and from the field centre.
- If you live in Somerset, Devon or Cornwall, you may prefer to go directly to Kilve Court. If this is the case, please complete the reply form accordingly and arrive at Kilve Court by 5.30pm on the Friday. For SatNav purposes, the postcode of the centre is TA5 1EA.

Settling into Halls

- The return time on Sunday 22nd September allows you to meet up with anyone bringing luggage and helping to settle you into your accommodation (the Halls of Residence are all open on Sunday).
- Each residence will have stated arrivals days and times but those students who are going on field trips should be able to arrive and move in to their residence on Friday 20th September, even if it is just to drop your belongings and go off again. **If you intend to do this we strongly advise you to contact your Hall in advance to let them know.** Please ensure you have adequate insurance cover for your belongings (this is important for the rest of your time in Bristol too, of course).

What you will need for the field trip

- For the field trip itself you'll only need clothing for two days, to include walking boots and a set of waterproofs, and cash for incidentals. You are warned that it may be muddy, so please don’t bring your best clothing and footwear!
- Bedding is provided, but towels and toiletries are not.

Accommodation and food

- The hostel is equipped for large field parties, with accommodation in shared rooms.
- They can cater for vegetarians and some special diets. There is space on the Student Declaration Form for Safety and Medical Fitness for you to advise us if you have particular dietary requirements.

Safety and behaviour on field trips

- The School has a strict policy in place to ensure the safety and enjoyment of all participants on field trips. The policy applies to all field trips. A copy of the policy is enclosed separately and you should read it before signing the declaration form.

Please remember to return the field trip reply form by Friday 6th September.

Please complete and return the Student Declaration form even if you are not attending the trip to Kilve.
6) **Fieldwork Equipment**

As an Earth Science undergraduate you will be undertaking a variety of practical and fieldwork classes throughout your three or four years in the School. There are several items of equipment which you will need to enable you to participate in your programme, as indicated in the list below.

The School will provide the equipment for the duration of your studies with us free of charge, however you will be asked to pay the cost price of replacement for any losses. A new field notebook will be supplied when you present a full, or almost full, one. If you already have some of the items on the list we will provide the remainder.

All equipment, with the exception of your notebook(s), must be returned when you leave the School.

Your equipment pack will be ready for you to collect when you arrive.

If you have any questions please contact the Fieldwork Administrator, Holly Teanby, on 0117 331 5275 or email holly.teanby@bristol.ac.uk.

<table>
<thead>
<tr>
<th>Equipment</th>
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</thead>
<tbody>
<tr>
<td>Acid Dropper Bottle</td>
</tr>
<tr>
<td><em>(this will be supplied in time for your week 7 field trips)</em></td>
</tr>
<tr>
<td>All Weather Writer</td>
</tr>
<tr>
<td>Birefringence chart (Liverpool)</td>
</tr>
<tr>
<td>Card - Grainsize</td>
</tr>
<tr>
<td>Compass / clinometer</td>
</tr>
<tr>
<td>Hand lens (Chrome x 10) Viking</td>
</tr>
<tr>
<td>Hard hat</td>
</tr>
<tr>
<td>High visibility vest</td>
</tr>
<tr>
<td>Field notebook</td>
</tr>
<tr>
<td>Safety Goggles</td>
</tr>
<tr>
<td>Tape measure</td>
</tr>
<tr>
<td>Whistle</td>
</tr>
<tr>
<td>Geological Hammer (2lb)</td>
</tr>
</tbody>
</table>
7) First Year units

Each academic year, students take  and are required to pass 120 credit points (cp) worth of units. Exceptionally, students studying Geophysics courses take  and are required to pass 130cp in the first year. Students are expected to undertake 100 learning hours for every 10cp (this includes lectures, practicals, independent work and revision).

Mandatory units are core units that students must take in order to be eligible for the programme award.

An optional unit is part of a set of units offered to students on specific courses; they are closely related to the core discipline of the course.

Open units are units that can be taken by any student in the University, if their course specifically allows it. The University sends information about open units to all new students, however for Earth Science students this will only be relevant to those taking a Geology or an Environmental Geoscience course and who have Maths and Chemistry at A-level or equivalent (see the detailed information about optional/open units below).

7.1 Detailed information about units for Geology or Environmental Geoscience students

Students on BSc or MSci Geology, MSci Geology with Study Abroad, BSc or MSci Environmental Geoscience and MSci Environmental Geoscience with Study Abroad take 100cp of mandatory Earth Sciences units as listed below. The remaining 20cp is made up from optional or open units, subject to certain constraints. Please note you may not register for more than 120cp in total.

Mandatory units

EASC10007 Computing for Earth Scientists (10cp)  EASC10002 Environmental Geoscience 1 (40cp)
EASC10001 Geology 1 (40cp)  EASC10008 Introduction to Field Skills in Earth Sciences (10cp)

Students who do not have Maths and Chemistry at A-level (or equivalent) are required to take the Earth Sciences unit EASC10006 Physics and Chemistry for Earth Scientists (20cp) as the remaining 20cp. This unit is carefully designed to give you the thorough preparation required for the rest of your degree studies and is timetabled specifically to fit with the mandatory units.

Optional/open units for students who have Maths and Chemistry at A-level (or equivalent)

If you have Maths and Chemistry at A-level (or equivalent) you may still choose to take EASC10006 Physics and Chemistry for Earth Scientists but we will automatically register you for EASC10006 if you do not choose a different unit, so you do not need to register for it as an open unit.

Alternatively you may consider making up your 120 cp total with units delivered by other Schools.

- Optional units that will complement your Earth Sciences units are MATH11004 Maths 1A20 or CHEM10001 Big Ideas in Science.
- Other options are a 20cp University Wide Language Programme (UWLP) open unit offered by the School of Modern Languages, a 20cp Bristol Futures (UNIV) open unit or PSYC10014 Science of Happiness.

Please read the notes on the next page about MATH11004, CHEM10001 and PSYC10014 before you consider taking any of them.

Option constraints:

- You must have Maths and Chemistry A-level or equivalent
- Of the UNIV units, UNIV10001 Sustainable Development Constraints is excluded because of subject overlap
- Optional/open unit choices are limited by your mandatory unit timetable (if there is a timetable clash you will not be able to take the optional/open unit)
- The number of places available on optional/open units may be limited
NOTES about specific suggested optional units

**Maths 1A20 MATH11004 20cp**  Students must have at least grade C in A level Maths (or equivalent).

This unit is designed for students with a good grasp of A-level Maths who want to study mathematical techniques. It aims to consolidate, develop and extend the skills in single variable calculus introduced at A level.

The unit begins with some basic ideas revising and extending school-level calculus, and then goes on to a thorough treatment of the calculus from the point of view of scientific applications. The subject is developed as far as differential equations and Fourier series. The mathematics is treated with enough logical precision to enable correct calculations and correct deductions to be made.

Assessment is 100% examination-based.

**Big Ideas in Science CHEM10001 20cp**  A general science unit open to all Faculty of Science students.

This unit provides a broad introduction to some of the fundamental ideas in science. It looks at the original ideas and concepts behind the discipline, the history and the people involved behind the main discoveries and inventions. The implications or consequences of the scientific method are explored as well as philosophical and ethical issues and the way different important approaches have built upon each other or interconnected.

The unit aims to provide an insight into some of the most significant scientific concepts and explore how these ideas have changed the way we think about the world. It aims to encourage students to be critical about the ideas presented – to think for themselves and discuss between themselves the scientific implications and ethical questions. The topics cover a broad range and draw upon expertise from across the entire Faculty of Science. More specifically, the unit aims to introduce broad scientific ideas which may include such topics as quantisation, imaginary numbers, climate change, relativity, symmetry and evolution.

Assessment is 100% coursework-based.

**Science of Happiness PSYC10014 20cp**  A School of Psychological Science unit open to all students.

This unit aims to introduce students to scientifically validated strategies for living a more satisfying life. Throughout the unit, students will explore the latest results from research in psychological science about how to be happier, how to feel less stressed and how to flourish, even in a challenging environment. They will be provided with opportunities to put some of these strategies into practice in their own life and to build some of the habits that will allow them to live a more fulfilling life.

Students will complete a weekly diary that captures their reflections on the material presented and their experience of the effectiveness of the various strategies proposed on their own happiness and that of others. Note this unit does not carry a formal mark; the diary will be used as evidence to confirm that students have met the intended learning outcomes for the unit, and will be marked on a pass/fail basis.

For the award of credit students must meaningfully engage with the lectures and Happiness Hubs, the completion of the reflective diary and participation in the group project. Credit will be withheld from students who miss lectures and Happiness Hubs without good reason, or who do not engage with both the individual and group activities.

*If you are confused by all the possibilities, please do not worry. We can advise you at School registration or you may e-mail mary.benton@bristol.ac.uk for further information in the meantime.*

If you would like to take a unit offered by another School or a Bristol Futures unit AND your A-level subjects allow you to do so please complete the enclosed optional units reply form and send to Julia Davidson, School of Earth Sciences, University of Bristol, Wills Memorial Building, Bristol, BS8 1RJ **no later than Friday 6th September.**
7.2 **Detailed information about units for Geophysics students**

Students on BSc or MSci Geophysics and MSci Geophysics with Study Abroad take 130cp of **mandatory** units from Earth Sciences (EASCXXXXX), Physics (PHYSXXXXX) and Maths (MATHXXXXX).

You do not choose any optional or open units.

**Mandatory units**

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASC10001</td>
<td>Geology 1</td>
<td>40cp</td>
</tr>
<tr>
<td>EASC10007</td>
<td>Computing for Earth Scientists</td>
<td>10cp</td>
</tr>
<tr>
<td>EASC10008</td>
<td>Introduction to Field Skills in Earth Sciences</td>
<td>10cp</td>
</tr>
<tr>
<td>MATH11004</td>
<td>Mathematics 1A20</td>
<td>20cp</td>
</tr>
<tr>
<td>PHYS10006</td>
<td>Core Physics I: Mechanics and Matter</td>
<td>20cp</td>
</tr>
<tr>
<td>PHYS10005</td>
<td>Core Physics II: Oscillation, Waves and Fields</td>
<td>20cp</td>
</tr>
<tr>
<td>PHYS11400</td>
<td>Essential Maths for Physics</td>
<td>10cp</td>
</tr>
</tbody>
</table>

7.3 **Detailed information about units for Palaeontology and Evolution students**

Students on BSc or MSci Palaeontology and Evolution take **mandatory** units from both Earth Sciences and Biology (Earth Sciences unit codes begin with EASC and Biology unit codes BIOL).

You do not choose any optional or open units.

**Mandatory units**

<table>
<thead>
<tr>
<th>Unit Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASC10001</td>
<td>Geology 1</td>
<td>40cp</td>
</tr>
<tr>
<td>EASC10006</td>
<td>Physics and Chemistry for Earth Scientists</td>
<td>20cp</td>
</tr>
<tr>
<td>EASC10007</td>
<td>Computing for Earth Scientists</td>
<td>10cp</td>
</tr>
<tr>
<td>EASC10008</td>
<td>Introduction to Field Skills in Earth Sciences</td>
<td>10cp</td>
</tr>
<tr>
<td>BIOL11000</td>
<td>Biology 1A Diversity of Life</td>
<td>40cp</td>
</tr>
</tbody>
</table>
8) First Year Book Lists 2019-20

You do not have to buy all the textbooks listed. Most books are available to borrow from the Earth Sciences Library, and the student society usually organises a second-hand book sale in the early part of the academic year. If you do wish to buy anything before you arrive you should choose from the ‘essential’ or ‘recommended’ lists.

Earth Sciences units:

Computing for Earth Scientists (taken by all students)

Recommended:

Further reading:
- A variety of online resources will be made available.

Geology 1 (taken by all students)

Recommended:
- Nichols, G. Sedimentology and stratigraphy. (2nd ed.) Blackwell, 2009
- Grotzinger, J. & Jordan, T. Understanding Earth (7th ed.). Freeman, 2014

Background reading:

Physics and Chemistry for Earth Scientists (taken by all Palaeontology and Evolution students, and most Geology and Environmental Geoscience students)

- Custom textbooks will be provided; material will also be provided online.

Environmental Geoscience 1 (taken by Geology and Environmental Geoscience students only)

Essential:
- Bryants, E. Natural Hazards. Cambridge University Press, 2005;
Background reading:


Maths units

Maths 1A20 *(taken by Geophysics students. May also be an optional unit choice, subject to eligibility)*

Recommended:


Further reading:

- Boas, M., Mathematical Methods in the Physical Sciences, Wiley and Sons, 2006
- Gilbert, J. and Jordan, C., Guide to Mathematical Methods, Palgrave (Macmillan), 2002
- Jeffrey, A., Mathematics for engineers and scientists, Chapman & Hall, London
- Jeffrey, A., Essentials of engineering mathematics, Chapman & Hall, London

Physics units

Core Physics I: Mechanics and matter *(taken by Geophysics students only)*

- Tipler and Mosca, Physics for Scientists and Engineers with Modern Physics (6th Edition), Freeman
- Young and Freedman, University Physics (13th edition), Pearson

Core Physics II: Oscillations, waves and fields *(taken by Geophysics students only)*

- Tipler and Mosca, Physics for Scientists and Engineers with Modern Physics (6th Edition), Freeman
- Young and Freedman, University Physics (13th edition), Pearson

Essential Maths for Physics *(taken by Geophysics students only)*

- Jordan, D. and Smith, P., Mathematical Techniques
- Boas, M., Mathematical Methods in the Physical Sciences

Biology units

Biology 1A Diversity of Life *(taken by Palaeontology and Evolution students only)*

Recommended:


Also recommended:

- A good general biology dictionary, e.g. Henderson’s Dictionary of Biology, Pearson Paperback
9) Student Societies
Our societies are organised by students to bring Earth Sciences undergraduates, postgraduates and staff together through social events, fieldtrips and sporting activities.

Dino Soc - the student palaeontology society
BUGGS - the Bristol University Geology & Geoscience Society
BESIG - Bristol Earth Sciences International Group

You will meet reps from the societies in Welcome Week and will be able to discuss joining.

10) Welcome Week activities
Please see the welcome week timetable on page 14 for all compulsory, recommended and optional activities during welcome week.

11) Useful contacts

For all students
Learning support in Earth Sciences          Dr Mary Benton  mary.benton@bristol.ac.uk
Introductory field trip & fieldwork equipment Holly Teanby  holly.teanby@bristol.ac.uk
General queries                           Julia Davidson  julia.davidson@bristol.ac.uk
                                            Karen Spencer  k.m.spencer@bristol.ac.uk

School of Earth Sciences telephone number: 0117 954 5400

For Geology and Environmental Geoscience students
First year unit options                     Dr Mary Benton  mary.benton@bristol.ac.uk
                                            Julia Davidson  julia.davidson@bristol.ac.uk

For Geophysics students
General enquiries about studying units in the School of Physics  phys-ug@bristol.ac.uk
General enquiries about studying units in the School of Maths      math-info@bristol.ac.uk

For Palaeontology and Evolution students
General enquiries about studying units in Biological Sciences    biologydept@bristol.ac.uk
12) **Checklist!**

- Remember to complete and return:
  - Introductory field trip reply form *(all students)*
  - Student declaration form *(all students)*
  - Learning support request form *(if you have any information that you think we need in order to help or support you during your studies)*
  - First year optional unit choice form *(only Geology or Environmental Geoscience students with A-level Maths and Chemistry)*

- Remember to work through the Maths Primer *(Geology, Environmental Geoscience & Palaeontology and Evolution students)*

13) **When you arrive**

- When you register in the School of Earth Sciences you will be given a timetable and a Student Handbook, which will give you all the information you need about the School and the first year of your programme. Once your University account has been activated your timetables will also be available online.

- A full School induction will be held on Wednesday 25th and Thursday 26th September. Attendance is mandatory.
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00-09:00</td>
<td>Registration</td>
</tr>
<tr>
<td>09:00-10:00</td>
<td>Welcome and Introduction</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>Plenary Sessions</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td>Lunch and Networking</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Guest Lecture 1</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>Group Workshops</td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>Plenary Sessions</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>Break</td>
</tr>
<tr>
<td>16:00-17:00</td>
<td>Guest Lecture 2</td>
</tr>
<tr>
<td>17:00-18:00</td>
<td>Panel Discussion</td>
</tr>
<tr>
<td>18:00-19:00</td>
<td>Networking Dinner</td>
</tr>
</tbody>
</table>

Welcome week timetable

Calendar and schedule for the week.
INFORMATION FOR NEW PALAEONTOLOGY AND EVOLUTION STUDENTS ONLY

School of Biological Sciences laboratory procedures

It is important that you understand and follow procedures in teaching laboratories.

Safety in the Laboratory

Many of the experimental protocols used in class practicals will involve limited exposure to substances that may be hazardous to health. You must follow the safety instructions given in practical schedules (and elsewhere) and behave in a manner that will not endanger yourself or others. Failure to comply with procedures and safety instructions may result in disciplinary action. Key points are:

1] Do not consume food (including gum) or drink beverages in the laboratory or use laboratory glassware as containers for food or beverages.

2] Never fool around in the laboratory. Horseplay and practical jokes are dangerous and prohibited.

3] Experiments must be personally monitored at all times. Do not wander around the room, distract other students, or interfere with their laboratory experiments, and do not use your mobile phone.

4] Dress properly during a laboratory activity. Long hair must be tied back, dangling jewellery and baggy clothing must be secured to avoid them being a hazard. No open-toed sandals allowed in the laboratory.

5] A lab coat should be worn at all times during laboratory experiments. Lab coats are provided.

6] Any accidents that occur in laboratory classes must be reported immediately to the member of staff running the class.

Immunisation against tetanus

All students coming into contact with soils, microorganisms or animals should have a current inoculation against tetanus i.e. inoculated within the last ten years. Anti-tetanus inoculations can be obtained from the Student Health Service if you need one. It is your responsibility to check your inoculation status. If you do not wish to be inoculated against tetanus for any reason, you must contact the School Safety Adviser.

Dissection

Dissection is an essential skill in biological sciences. The School’s first year units and some higher-level units involve dissection of dead material and handling live immature embryos or larvae of some common invertebrates and vertebrates. The higher invertebrates and vertebrates used in practicals are obtained from commercial sources (e.g. fisheries) or are culled for other purposes: none are killed purely for use in the School. Some higher-level units include experiments on invertebrate preparations, living tissues and embryos. **All practical classes are mandatory. No alternatives are offered.**

Contacts

If you have any questions about study in the School of Biological Sciences please contact:

Biological Sciences School Office: Telephone 0117 394 1212, e-mail: biologydept@bristol.ac.uk
We look forward to welcoming you to the School of Earth Sciences very soon!