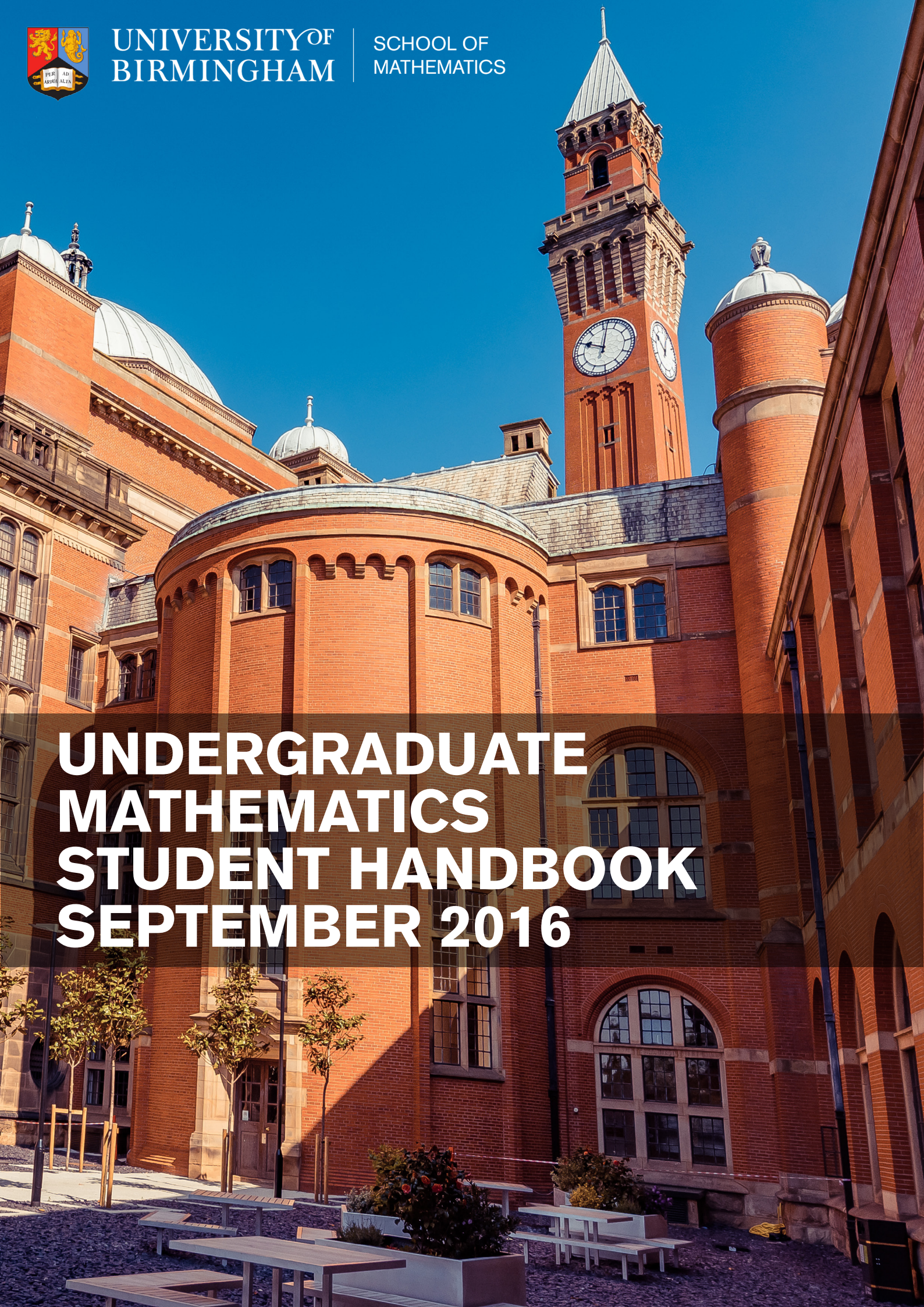

UNIVERSITY OF BIRMINGHAM | SCHOOL OF MATHEMATICS

UNDERGRADUATE MATHEMATICS STUDENT HANDBOOK SEPTEMBER 2016

CONTENTS

NOTE

Although every effort is made to ensure accuracy, the School of Mathematics reserves the right to modify or cancel any statement in this handbook in light of events occurring after its production. Important updates will be available on the School of Mathematics website: http://www.birmingham.ac.uk/schools/mathematics

All students are expected to read this Handbook thoroughly and abide by all of the regulations and guidance offered.

INTRODUCTION

Welcome to the University of Birmingham and to the School of Mathematics in particular. This handbook provides essential information on your programme of study for this academic year. It contains details of School processes and important deadlines. The contact information of key personnel in the School of Mathematics is included as well as links to useful University resources. You will need to ensure that you read through all the sections which are relevant to you.

For Year One students the first term is particularly designed to ease the transition from School or Sixth Form College to University. To cater for differing backgrounds, a certain amount of consolidation is necessary but, even if you have met some of the topics before, you will almost certainly find that the presentation is more comprehensive and more rigorous.

The Second Year plays an important role in your degree programme. Single Honours students should be building up a strong background in several branches of the mathematical sciences in preparation for the final stage. BSc and BA Joint Honours students continue the study of two of the branches of the subject which were met in the first year: Analysis and Linear Algebra. Remember that, unlike the first year, second year marks do count towards your degree classification (see section on classification of degrees).

The Third Year is either the final year or the first half of your final stage depending on whether you are following a BA/BSc programme or an MSci programme. Students on a BSc programme with a year abroad or a Year in Industry will spend this third year away from the University of Birmingham.

The Fourth Year of the MSci programme features an individual project which accounts for one third of the year's programme. Students returning from a year abroad or a year in industry will follow a programme similar to the third year of the relevant BSc/BA programme.

SCHOOL CODE OF CONDUCT

Students in the School of Mathematics are expected to conduct themselves in a manner consistent with University regulations. They are expected to make themselves fully aware of their responsibilities and obligations and to meet these on time.

Information on University regulations, guidance notes and codes of practice can be found in the "for students" section of the Web pages of the University of Birmingham.

Arriving late for lectures and/or casual chatter causes considerable disruption for the majority of students and is distracting to the lecturer. During lectures, only discussions and conversations led by the lecturer are permitted. Any student failing to abide by University Regulations may be required

to leave the lecture room and subsequently disciplinary action (including possible expulsion from the University) regarding the incident may be taken.
Mobile phones must be switched off during lectures and other classes.

ACADEMIC CALENDAR

Autumn Term - 11 weeks
Monday, 26th September 2016 to Friday, 9th December 2016

Christmas Vacation - 4 weeks
Saturday, 10th December 2016 to Sunday, 8th January 2017

Spring Term - 11 weeks
Monday, 9th January 2017 to Friday, 24th March 2017

Easter Vacation - 4 weeks
Saturday, 25th March 2017 to Sunday, 23rd April 2017

Summer Term - 8 weeks 3
Monday, 24th April 2017 to Friday, 16th June 2017

Main Examinations - 5 weeks
Tuesday, 2nd May 2017 to Friday, 2nd June 2017

Supplementary Exams - 2 weeks
Monday, 21st August 2017 to Friday, 1st September 2017

University Closing Days
Friday 23rd December 2016 to Tuesday 3rd January 2017
Friday, 14th April 2017 until Wednesday 19th April 2017
Monday, 1st May 2017 (Early May BH) and Monday, 29th May 2017 (Spring BH)

The teaching and learning period of the academic year consists of the whole of both the Autumn Term and Spring Term with the first week of the Summer Term being a revision week. The Christmas and Easter Vacation periods are void of any teaching activities but should be used to consolidate the understanding and skills learned in the preceding term.

SCHOOL STAFF AND EXTERNAL EXAMINERS

Head of School			
Professor Paul Flavell	P.J.Flavell@bham.ac.uk	Room 233	
PA to HoS			
Miss Paula Gardiner	P.J.Gardiner@bham.ac.uk	Room 231	0121 4147566
Head of Education			
Dr David Leppinen	D.M.Leppinen@bham.ac.uk	Room 230	0121 4146585
Senior Tutor			
Prof John Leach	J.A.Leach@bham.ac.uk	Room 317	0121 4146200

Director of First Year Studies
Dr Richard Kaye R.W.Kaye@bham.ac.uk Room 308 0121 4143359

Director of Second Year Studies (Autumn)
Dr Qianxi Wang Q.X.Wang@bham.ac.uk Room 325 0121 4146602

Director of Second Year Studies (Spring)
Dr Daniel Loghin D.Loghin@bham.ac.uk Room 228 0121 4146189

Director of Year 3 BSc Studies
Dr Corneliu Hoffman C.G.Hoffman@bham.ac.uk Room 225 0121 4146599

Director of Year 3 and 4 MSci Studies
Dr Jamal Uddin J.Uddin@bham.ac.uk Room 229a 0121 4146578

Reasonable Adjustments Contact
Prof John Leach **J.A.Leach@bham.ac.uk** **Room 317** **0121 4146200**

Director of Interdisciplinary Studies
Dr Warren Smith W.Smith@bham.ac.uk Room 311 0121 4146192

School Examination Officer
Dr Dirk Hermans D.F.M.Hermans@bham.ac.uk Room 224 0121 4146596

External Examiners
Statistics – Dr Andreas Grothey, University of Edinburgh
Pure Mathematics – Dr Thomas Müller , Queen Mary, University of London
Applied Mathematics – Dr Stephen Langdon, University of Reading
The students are not allowed to contact the examiners directly.

Welfare Tutors and Extenuating Circumstances Officers
Dr Olga Maleva O.Maleva@bham.ac.uk Room 109 0121 4146584
Dr Biman Chakraborty B.Chakraborty@bham.ac.uk Room 306 0121 4146460

Director of Employability
Prof Sergey Shpectorov S.Shpectorov@bham.ac.uk Room 235 0121 4146604

Careers Consultant (Mathematics)
Richard Newman R.J.Newman@bham.ac.uk Careers Network 0121 4148033

Teaching Support Office maths.ug@contacts.bham.ac.uk Room 214 0121 4146587
Office Hours:
Monday 8:45hrs - 16:00hrs
Tuesday 8:45hrs - 16:00hrs
Wednesday 8:45hrs - 13:00hrs
Thursday 8:45hrs - 16:00hrs
Friday 8:45hrs - 16:00hrs
Online: www.birmingham.ac.uk/MathsUG

Academic Administration Officer
Mrs Tracey Priest T.J.Priest@bham.ac.uk Room 212 0121 4146588

Graduate School Secretary
Mrs Janette Lowe J.Lowe.20@bham.ac.uk Room 214 0121 4146193

PHYSICAL ENVIRONMENT

The Watson Building (R15 on the campus map) houses the School of Mathematics and, as well as staff and secretarial offices, contains the principal lecture theatres used by the School - A and C on the ground floor and B on the first floor. In addition, there is a variety of smaller teaching rooms - most can be located in the obvious way: 1xx being on the first floor, etc. The one exception is room R17/18 which is on the first floor near Lecture Room B. The Watson Building is usually open on weekdays from 8.00hrs until 18.00hrs. It is closed on Saturdays and Sundays.
The University increasingly schedules lectures and support classes in rooms across campus.

You should familiarise yourself early on with the location of the rooms where your classes are taking place.

COMPUTING FACILITIES

IT Services will issue you with a username and password that will give you access to the computing facilities across campus. The main computer cluster locations are available at http://www.clusters.bham.ac.uk and include the Learning Centre (R28), the new University Library (R30) and Poynting Building (R13). Additional computer facilities are available in the Watson Building. These are located in the Maths Learning Centre (MLC, Room 116) and room 304 and are only available to Mathematics students. All of the computers give access to a standard suite of software including Microsoft Office, web browsers and various mathematics and statistics packages, such as Maple, Minitab and MatLab. Some of this software is available for home-use; details are available at: http://www.softwaresales.bham.ac.uk (charges apply).

Your username and password give access to the Student Portal http://my.bham.ac.uk where you can access your email and other information and learning resources such as the virtual learning environment Canvas. If there is any change to your personal details, including your address (either permanent home or term time), please update this information promptly on the Student Portal.

The Maths Learning Centre (room 116) provides a useful study space with convenient access to computers. Postgraduate students will conduct drop-in support sessions weekly throughout the Autumn and Spring Terms. Please see the notices for the times of these drop-in sessions. Occasionally the Maths Learning Centre will be booked for meetings or for Applicant Visitor Days; or such occasions it will not be available for study purposes.

White pigeonholes are located on the 1st floor of the Watson building outside Room R17/18 and opposite to Lecture Room B. These pigeonholes are used for the submission of coursework as required by your Lecturers.

E-mail is the main method by which students are contacted. You must check your University e-mail account regularly or ensure mail is forwarded automatically from the University account to your preferred e-mail account. Failure to check your email is not an acceptable excuse for being unaware of important information that has been sent to you. E-mail addresses of all members of academic staff in the School of Mathematics are found at the back of this booklet.

The main notice boards are to be found in and around the foyer on the ground floor of the Main Entrance to the Watson Building and outside of the Teaching Support Office. It is a student's

responsibility to ensure that they regularly read the notice boards - failure to read the notice board is not an acceptable excuse for being unaware of important information that had been displayed.

Students who have problems with mobility are welcome to use the (small) lift which serves all floors in the Watson Building, but should first approach a Welfare Tutor for formal permission. All other undergraduates are expected to use the stairs.

There are a limited number of Lockers available to Mathematics students. These are administered by the Teaching Support Office (room 214), on a first come, first served basis.

The Watson Building is a non-smoking area. Food and drink are not allowed in teaching rooms, including computer clusters.

LOST PROPERTY

Should you lose any item please go to the Teaching Support Office (room 214) and see if it has been handed in. If not, please go to the University Lost Property Office which is situated within the Security Centre.

PERSONAL TUTORS

All students are assigned a personal tutor who is a member of the academic staff of the School and with whom they can discuss individual problems. A personal tutor will whenever possible give their tutees help and advice; in situations where this is not possible, the tutors will direct their tutees to an appropriate person or service. A student's personal tutor normally acts as his/her principal referee in respect of applications for employment or further study.

First and second year students have regular pre-arranged meetings with their tutor. Attendance at these meetings is compulsory and will form part of your diligence record. For visa national students, these meetings can and will be used as attendance monitoring contact points. Failure to attend these meetings will have serious consequences.

Tutor group meetings for first year students are of pivotal importance in the provision of feedback. Graded, but formative work (i.e. the problem sheets will not form part of your summative assessment) will be returned at your tutor group meetings) and feedback given to the type of errors identified in the work. There will be scope to ask questions within a small group of students who you will become very familiar with. It is not uncommon for these tutor groups to evolve into true learning groups, who meet outside of scheduled tutor meetings to support each other's learning.

Tutors may be changed either temporarily or permanently because of staff study leave or staff changes (you will be notified via e-mail), but most students can expect to keep the same tutor throughout their course. If students find that they are just not compatible with their personal tutor, it may, exceptionally, be possible to arrange a change in personal tutor. Requests for a change of tutor should be made to the Senior Tutor.

OFFICE HOURS

All members of staff (unless they are on study leave) have allocated a minimum of one and a half hours per week during term-time (known as Office Hours) when they guarantee to be available to see their tutees and other students. Office Hours are displayed prominently on office doors and are available on

the School of Mathematics web page. If you wish to see a member of staff during his/her office hours but cannot because of a clash with lectures, or another good reason, then e-mail the member of staff to arrange an appointment.

Students are strongly encouraged to take advantage of lecturers' office hours. Feel free to turn up either individually or in small groups. As well as providing you with the opportunity to discuss mathematics with a lecturer on a one-to-one basis, office hours also give lecturers valuable feedback on how their course is progressing.

Should you require additional feedback on a piece of continuous assessment please see the appropriate lecturer during his/her office hours.

SAFETY

Students should ensure that they are familiar with procedures for evacuating any building they are using in case of emergency. In the case of the Watson Building an emergency evacuation is signalled by the continuous ringing of the fire bells; students should leave the building immediately by the nearest available exit and make for the recognised assembly point which is the grassed area behind the Watson Building between the Watson Building and the Arts Building. A practice emergency evacuation will be held sometime in the Autumn Term. The fire alarm system in the Watson Building is regularly tested. Such tests are characterised by short intermittent ringing of the fire bells (with no evacuation).

PROGRESS REVIEW TUTORIALS

All students, with the School of Mathematics as their Home School will have three progress review tutorials with their Mathematics personal tutor, one during each of the Autumn, Spring and Summer Terms. The attendance at these is mandatory. Students will be sent, by e-mail, information about progress review tutorials a week or two before they are due to take place.

Remember that your personal tutor is expected to be your primary referee for any job application. You are encouraged to submit an up-to-date CV to your personal tutor at each progress review tutorial.

All Summer Term progress review tutorials will take place during the last two days of term - Thursday, 15th June 2017 and Friday, 16th June 2017.

ATTENDANCE

All full-time students are required to be in attendance for the whole of each of the three terms which comprise the academic year. They are required to be regular and punctual in attendance to all lectures, seminars, tutorials, laboratory and other classes associated with each of the modules for which they are registered.

Persistent non-attendance and/or non-submission of coursework without good reason could result, after due warning, in the School setting in motion a reasonable diligence procedure to exclude a student from examinations or to require a student to withdraw from the University. Students for whom either of these recommendations is made will have the right to produce evidence of extenuating circumstances to an appropriate body in the University.

The UK Government stipulates that all educational institutions that are licensed to sponsor visa national

students must monitor their engagement with their programmes of study. As such, the University of Birmingham has a legal duty to report visa national students who do not fully engage with their programme of study.

Examples of the way in which the University of Birmingham will monitor student engagement include:

- arrival and attendance at induction and/or meetings;
- attendance at time-tabled classes, tutorials and meetings throughout the academic year;
- the submission of assessed work by the stated deadlines, and attendance at examinations.

Being reported to the UK Government would have serious implications for a student's immigration status and their ability to remain in the UK. It is therefore essential that regular attendance and active engagement is maintained throughout your programme of study.

You are strongly advised to contact the International Students Advisory Service (ISAS) in the Aston Webb Building if you have any concerns about your visa or your immigration status. ISAS can be contacted at 0121 414 8464, or by email to: isas@contacts.bham.ac.uk.
A student who, for good reason, wishes to be absent from the School for any part of a term must first obtain the permission of the Head of Education. In particular, students are required to be in attendance for all of the Summer Term and any early departures, e.g. to take up an employment, need prior approval by the School.

UoB Me Mobile App
UoB Me is a free mobile app which provides personalised information direct to your mobile device to help you get to know the University and campus facilities. This should help with your lecture attendance. Features include campus information and interactive maps, latest news and events, social media, important notices and much more. The app is available to download from the iTunes or Android stores. For information on other University mobile apps please visit www.birmingham.ac.uk/appstore

QUESTIONNAIRES

The School values student views and could well change the way in which it does some things in the light of what students have said. For each module, you will normally be asked to complete two (anonymous) questionnaires, the first in the fifth week or so of a term to give early feedback on how a module is going and the second close to the end of the term.

To make a questionnaire exercise work, it is very helpful if:

(i) You complete the questionnaire; information gleaned from the analysis of questionnaires about how a module is being received is not particularly reliable unless the majority of the class has responded;

(ii) You make considered and constructive (anonymous) comments in the space provided for that purpose.

There are also surveys organised by other agencies for example, the National Student Survey (NSS), which is conducted on behalf of the UK government. All students are strongly encouraged to participate in these surveys.

PLAGIARISM

Most modules given by the School of Mathematics require students to submit work done in their own

time as part of the assessment of the module. It is required that any such work which you submit must be your own work. The University takes a strong line on plagiarism (i.e. submitting work which is not your own as if it were your own). The guidelines issued by the University on plagiarism make it quite clear that plagiarism is a form of cheating and, as such, carries severe penalties when detected.

The School of Mathematics policy on Plagiarism is detailed on the School webpage: http://www.birmingham.ac.uk/schools/mathematics/students/undergraduates/index.aspx.

Students are expected to read this policy and they must agree to it by signing a Student Learning Agreement.

WELFARE AND GUIDANCE

The Welfare Tutors in the School are Dr Biman Chakraborty and Dr Olga Maleva. The Welfare Tutors are available to see students during their welfare office hours. They will see students at other times by prior appointment or in the case of an emergency.

Students are encouraged, initially, to approach their Personal Tutors to discuss academic, personal or other problems. Your Personal Tutor may refer you, as appropriate, to the Welfare Tutors. All discussions with a student will be treated as strictly confidential unless he/she agrees otherwise.

The Counselling and Guidance Service, which is based in the Student Hub in the Aston Webb Building, can offer advice and help with many aspects of life. There are counselling and psychological support services and advice can be given on financial matters and hardship problems. Students can refer themselves by making an appointment either personally at the reception desk or by telephone on 0121 414 5130. Alternatively, one of the Welfare Tutors can, with a student's agreement, make an appointment on his/her behalf - some students prefer this.

The Advice and Representation Centre (known as the ARC) is a service provided by the Guild of Students and is located on the ground floor of the Guild building (O1 on the campus map) and can be reached by telephone on 0121 251 2400 or by email arc@guild.bham. ac.uk. The ARC can give useful information on a wide range of matters ranging from travel and what's on to legal problems. The ARC also provides counselling and welfare services which are complementary to those provided by the Counselling and Guidance Service. The ARC can give advice to students who find themselves in the position of wanting to appeal against a decision of the University over their examination results.

Niteline is an all-night confidential listening and information service which is staffed by volunteer students and is based in St Francis' Hall next to the Guild of Students (O2 on the campus map). It operates from 18.00hrs until 8.00hrs during term time –you can telephone 0121 472 4616 or email niteline@guild.bham.ac.uk, or drop in if you prefer. In addition to offering crisis support when other University Support Services are closed, Niteline can provide information about the University, the City of Birmingham, events, eating out etc.

TRANSFERS

For various reasons students may wish to transfer from one degree programme onto another during the course of their studies. In all cases the transfer must be approved by the Head of Education. The necessary forms to be completed can be collected from the Teaching Support Office.

It is possible to transfer from an MSci programme to the corresponding BSc programme up until the end of week eight of the Spring Term of Year Three. It is also possible to transfer from a BSc

programme to the corresponding MSci programme up until the end of week eight of the Spring Term of Year Three providing that the student has satisfied all of the progression requirements for the MSci programme.

Students on the BSc programme in Mathematics with Study in Continental Europe can transfer onto BSc Mathematics up until the end of the Spring Term of Year Two.

Other transfers may be possible during week one or two of the Autumn Term of Year One. Transfers at a later stage are not normally practical without losing a year of academic study. Students considering transferring degree programmes should contact the Head of Education.

LEAVE OF ABSENCE AND WITHDRAWALS

If you are considering taking a Leave of Absence from the University you must consult the Head of Education who will assist you in completing the relevant form and collect the appropriate evidence as necessary. Taught Student Administration will then process the form and notify Housing and Accommodation Services (for students in University accommodation only), the Finance Office and the student's Local Education Authority - if applicable. You will then receive email confirmation from Student Records that your Leave of Absence has been processed.
Permanently withdrawing from your studies means that you have decided to stop studying at the University and that you have no intention of returning to continue your programme of study in the future. Withdrawing from the University will have financial and visa implications. If you are considering permanently withdrawing from the University, you are strongly advised to discuss the matter with your personal tutor. You must then see the Head of Education and complete the necessary forms which are available from the Teaching Support Office. Once your record has been updated by the Student Records Office you will receive confirmation via the email address you provided. Notification will also be sent to the Housing and Accommodation Services (for students in University accommodation only), the Finance Office and to your Local Education Authority if applicable.

EXTENUATING CIRCUMSTANCES

At various stages during their period of study, students may encounter significant personal difficulties which they feel may have affected their ability to study for, or, complete academic assessments, including examinations. The University of Birmingham refers to these difficulties as "Extenuating Circumstances" and they may include significant illness; the death or serious illness of a close relative; family crisis directly affecting the student; exceptional and unforeseen financial hardship. Circumstances which are not considered Extenuating Circumstances include minor illnesses; assessments or examinations scheduled closely together; personal or domestic events (weddings, holidays, moving house, etc.); sports activities. The Code of Practice on Extenuating Circumstances is available on the School of Mathematics webpage. Note that chronic or long-term conditions such as a physical disability, anxiety, depression, ADHD, ME, etc., are not considered as Extenuating Circumstances and instead are addressed using Reasonable Adjustments (the Code of Practice on Reasonable Adjustments for Students is available on the School of Mathematics webpage).

It is the responsibility of a student to report Extenuating Circumstances to the Extenuating Circumstances Officer. All requests for the consideration of Extenuating Circumstances must be accompanied by independent third party evidence such as a letter from a Doctor/ Consultant or a Hospital certificate; a letter from a solicitor or counsellor; Death Certificate. Note that students are responsible for providing acceptable and sufficient evidence.

You must normally see the Extenuating Circumstances Officer in person. He/she will ask you to fill out

an Extenuating Circumstances Form. Students are expected to fill out an electronic version of this form after consultation with an Extenuating Circumstances Officer in person. In exceptional circumstances, for example, you are hospitalized, someone may contact the Extenuating Circumstances Officer on your behalf, but there is still the expectation that all forms will be completed and returned electronically accompanied by the appropriate substantiating evidence.

EXTENUATING CIRCUMSTANCES: CONTINUOUS ASSESSMENT

Extenuating Circumstances may affect your ability to submit continuous assessment. How these are dealt with varies from module to module.

If your Extenuating Circumstances affect a module which is not taught by the School of Mathematics, the Extenuating Circumstances procedures of the module-teaching School will apply. You should report your Extenuating Circumstances to both the School of Mathematics and to the module-teaching School. The Extenuating Circumstances Officers from both Schools will then ensure that the appropriate options are enacted (for example, an extended assessment deadline, an extra assessment opportunity, etc.).

If your Extenuating Circumstances affect a module taught by the School of Mathematics where there are several pieces of continuous assessment then a "best out of" procedure may be used. Here is a typical example: In a 20 credit module with 4 equally weighted assessments across the Autumn and Spring terms, the final continuous assessment mark is calculated based upon the best 3 out of 4 assessments. Thus, if you fail to submit one assessment, then you need take no action. If you fail to submit more than one assessment then you should see the Extenuating Circumstances Officer at the earliest opportunity. At the end of the year, the Extenuating Circumstances Officer and your Year Director will consider your case. If appropriate, it may be possible to make an adjustment to the way your module mark is calculated. Documentary evidence must be provided.

If you have completed less than 50% of the available continuous assessment, then even with Extenuating Circumstances, it would not normally be possible to award full marks for the continuous assessment component of a module.

For modules which have project-based continuous assessment or which require the production of a dissertation, it is possible to seek an extension to submission deadlines due to Extenuating Circumstances. In such cases you will be required to see the Extenuating Circumstances Officer to discuss your situation and the possibility of being granted an extension. Documentary evidence will be required. Minor computer problems and/or inadequate planning are not considered to be Extenuating Circumstances.

It is the responsibility of each module lecturer to inform students at the beginning of the academic year of the exact assessment arrangements for his/her module and how Extenuating Circumstances are to be dealt with. It is the responsibility of each student to be aware of the arrangements for each of his/her modules, to keep track of missed pieces of continuous assessment and to see the Extenuating Circumstances Officer as appropriate.

EXTENUATING CIRCUMSTANCES: EXAMINATIONS

Extenuating Circumstances may also affect your ability to sit an examination. In such cases you MAY request a deferral of your examination. All deferral requests must be made BEFORE the

commencement of the affected examination, and, students must understand and accept that there is no guarantee that their deferral request will be granted. If you do not request a deferral, or if your deferral is not granted, the mark you achieve on your examination will stand (with a mark of 0 recorded for any exams which you do not attend). Students can request a deferral of their examination up until the scheduled start time of the examination. The request to defer an examination should be made in person to the Extenuating Circumstances Officer at the earliest possible opportunity. If there is insufficient time to submit your request to the Extenuating Circumstances Officer, you may submit your request to the Examinations Office. All requests for deferral of Examinations must be accompanied by substantial, contemporaneous third-party documentary evidence. If you do not have documentary evidence your request for deferral can be provisionally granted, however, you must provide satisfactory evidence within 5 working days after the date of your examination. Failure to provide satisfactory evidence will result in a mark of 0 being awarded for the provisionally deferred examination.

A request for the deferral of an examination will only be granted in exceptional cases. For example, the death of a close relative in the Autumn term is unlikely to be deemed sufficient to grant a deferral, however, the death of a close relative immediately before, or during, the examination period may be deemed sufficient. Minor illnesses such as, but not limited to, headaches, toothaches, stomach-aches, etc., are not usually considered to be extenuating circumstances, and it is very unlikely that deferrals will be granted on the basis of minor illnesses. Indeed students must assume that deferrals will not be granted for minor illnesses, unless there is substantial documentary evidence. Each request for deferral will be considered on an individual basis. If a request is granted, the examination will be deferred to the next appropriate opportunity. The next opportunity to take an examination deferred from the main examination period will be during the subsequent supplementary examination period. The next opportunity to take an examination deferred during the supplementary examination period will be during the main examination period of the following academic session. Note that progression decisions and final degree classifications may only be possible after the deferred examination is sat. Note also that if a re-sit examination is deferred, the mark of the deferred examination will still be capped at the Pass level.

Student anxiety which is the direct result of a student being involved in an Examination Irregularity is not considered to be an acceptable extenuating circumstance.

Students with a short term, time limited condition affecting the ability to sit an examination may request Alternative Arrangements for the examination(s) affected. Alternative Arrangements will be made in only the most exceptional of circumstances. The threshold for granting Alternative Arrangements will significantly exceed that of deferring an examination.

The above procedures outline how Extenuating Circumstances will be dealt with for examinations during the examination period. In particular, this means that if you attend an examination, then your examination mark stands. In exceptional cases you may feel that the above procedures do not adequately deal with your Extenuating Circumstances (for example, sudden illness during an examination). In these cases you must see the Extenuating Circumstances Officer and you will be required to provide documentary evidence.

NOTE
Students cannot defer one portion of a combined examination, either before or retrospectively. Either a student attempts and accepts the marks on all portions of a combined examination, or, they request for a deferral on all portions of a combined examination. For example, the two separate 10 credit modules 1Mech and 1PS can be examined together during the same examination setting. In such cases students cannot request, in advance, the deferal of one half of the combined examination and still expect to attempt the other half. Similarly, a student cannot retrospectively request to defer half of a combined examination, when they have already attempted the other half. Either a deferral request will

be granted for all portions of a combined examination, or, all portions of that examination will be marked and recorded.

The deadline for seeing the Extenuating Circumstances Officer will be announced before the commencement of the examination period. You MUST NOT delay seeing the Extenuating Circumstances Officer until after you have your results.

Your case will then be considered by the Extenuating Circumstances Panel. Your case will be treated in a confidential manner, and only the outcome of the Extenuating Circumstances Panel will be revealed to the Board of Examiners.

REASONABLE ADJUSTMENTS

When a student has a disability, the University will make reasonable adjustments to ensure that the student is not put at a substantial disadvantage as a result of that disability. This is in keeping with the Equality Act of 2010 which confirms that someone has a disability if:

(a) they have a physical or mental impairment, and
(b) the impairment has a substantial and long-term adverse effect on their ability to carry out normal day-to-day activities.

Examples
Someone with a visual impairment; someone who is incapable of walking unaided; someone with dyslexia; someone with severe long term depression, etc.

Examples of reasonable adjustments include: providing enlarged handouts; allowing someone to bring their car onto campus; extra time in exams; allowing someone to take their degree on a part time basis. Students with queries relating to reasonable adjustments should see the Senior Tutor. In order for reasonable adjustments to be made, a student must be assessed by Student Services and a Student Support Agreement put in place. Students may be referred to Student Services by the Senior Tutor, or they may refer themselves. Details on how to do this are available at:
http://www.as.bham.ac.uk/studentlife/disability/disclosing.shtml

APPEALS

Appeals against any decision of the Boards of Examiners must be made through the Student Conduct and Appeals section of the Academic Office within a specified period of time immediately following the release of examination results. Students may appeal on either or both of the following grounds:

(i) That there were circumstances unknown to the School Board of Examiners which contributed to a student's academic performance;

(ii) That there was an administrative irregularity or failure in procedure giving rise to reasonable doubt as to whether a recommendation on a student made by the School Board of Examiners to the University Progress Board would have been different if it had not occurred. It is not possible to appeal against the academic judgement of the Board of Examiners.

Note that circumstances listed in (i) above normally exclude Extenuating Circumstances which could have been brought to the attention of the School Board of Examiners by the stated deadline.

USE OF CALCULATORS IN EXAMINATIONS

There will be a statement on the front page of each examination paper indicating which types of calculator, if any, are allowed for that paper.

There are a number of examination papers set by the School of Mathematics in which calculators are not permitted. For example, calculators are not allowed in examinations for 1RAC (Real Analysis & the Calculus), 1RACm (Real Analysis & the Calculus (20 cr)), 1VGLA (Vectors, Geometry & Linear Algebra) and 1AC1 (Algebra and Combinatorics). In some other examination papers set by the School of Mathematics, non-programmable and non-graphical calculators may be used provided that they are silent, self-contained, hand-held and either battery- operated or solar-powered and cannot be used to store text. Students are requested to consult their lecturers if they have any concerns about the use of calculators during their examinations.

Invigilators are empowered to carry out spot checks in an examination room to ensure that students are not in breach of the calculator rule which is in force for the particular paper which they are sitting. Any student found to be in breach of that rule will be subject to disciplinary procedures.

RELIGIOUS OBSERVANCE IN THE EXAMINATION PERIOD

Students who are unable to take examinations on any date during the specified examination period for reasons of religious observance should register with the Examinations Office. Information can be found at: https://intranet.birmingham.ac.uk/as/cladls/exams/religious.aspx.

Students are requested to complete and submit a Religious Observance Form to the Teaching Support Office to be authorized by the School Examinations Officer. The deadline for receipt of completed forms is Friday, 10th February 2017.

The Examinations Office will make every effort to avoid the times/dates in students' requests. However due to the constraints placed on the examination timetable this may not be possible and it may be necessary, with advice from the University Chaplaincy, to grant deferral of examintions.

STAFF STUDENT COMMITTEE (SSC)

School of Mathematics Student Reps and staff sit together to form the Staff Student Committee. In particular, the SSC is comprised of the Year Directors, the Director of Interdisciplinary Studies, a Teaching Support Administrator, the Head of Education and all Student Reps. The role of the committee is to discuss and respond to the academic issues raised by students providing a formal mechanism for the representation of student views. All students are eligible to become Student Reps. Elections for Student Reps expecting to proceed to Years 2, 3 and 4 of the subsequent academic year will take place near the end of the Spring Term of the proceeding year. Elections for Year 1 Student Reps will take place during October of each academic session.

There are normally five formal meetings in an academic year which are chaired and co-chaired by two elected Student Reps, with minutes taken by an elected Student Rep and guided by the academic staff liaison contact. In addition to this, there are informal fortnightly meetings with a member of Teaching Support staff as a means to ensure views raised are acknowledged throughout the academic year.

A list of Student Reps, together with photographs, are displayed on the SSC notice board and

via Canvas. All Students are encouraged to raise any issues of concern to the SSC through their representative(s).

MATHEMATICS STUDENT AMBASSADOR SCHEME

The Student Ambassador Scheme gives Mathematics students an opportunity to represent and promote the University to prospective students through a variety of different activities.

It's a brilliant way to develop skills that look great on your CV, meet new people, have fun, and get paid for it at a very competitive rate. No previous experience is necessary, although enthusiasm for the University is extremely important! A good knowledge of the facilities on offer here at Birmingham is also beneficial.

Benefits

- Full training once selected for the scheme
- Payment of £9.56 per hour
- Free event lunch during Applicant Visit Days
- Subsidised Maths Ambassador exclusive Royal Blue hoody for £10
- Flexible working hours to fit in with your study
- Personal Skills Award (PSA) https://intranet.birmingham.ac.uk/as/employability/psa/index.aspx
- Build up professional references and employment experience
- Meet other student ambassadors and make new friends
- Gain experience of working with young people

Requirements

- AAA/IB34 or better (Year 1)
- 65% or better with no fails (Year 2, 3, 4)
- Punctual and reliable
- Ability to communicate clearly
- Willing to share the benefits of your experience of life, university and School of Mathematics
- Positive attitude
- Excellent interpersonal skills, including tact and discretion
- Team player
- Willing to lead a group of young people through various activities
- Must become registered with WorkLink in the Guild of Students

https://www.worklink.bham.ac.uk/WorkLink/index.asp

Events

- Undergraduate Open Days
- Applicant Visit Days
- Discovery Day
- Girls in STEM Day
- Maths Big Quiz
- Masterclasses
- School visits

You will receive full training prior to delivering any of the activities. We are also happy to provide work references for you.

You are paid for the work that you undertake and the current rate of pay is £9.56 per hour (including compulsory training).

If you think you have skills to make an excellent student ambassador, please reply to the e-mail sent to all students in October each year about how to become an ambassador (stating your name, programme, ID number and halls). For more details, please contact us at maths@bham.ac.uk.

All students who would like to work as ambassadors must be fully registered with WorkLink which is based in the Guild of Students.

THE MATHEMATICS SOCIETY (MATHSOC)

The Mathematics Society, also known as MathSoc, is one of many existing societies at the University of Birmingham. Led by an elected committee of Mathematics students from a range of year groups, its primary aim is to provide social and non-academic support in order to improve students' university experience. This is achieved by the many social, employability and sporting events that are hosted and organised throughout the academic year. One project of significance is the "MathSoc Family Scheme" that was launched in 2013. This scheme within the School of Mathematics involves first year undergraduate "children" being able to gain both academic and non-academic advice from their allocated "parents" in successive years.

Facebook: www.facebook.com/UoBMathSoc
Email: mathsoc@guild.bham.ac.uk

PASS IN MATHEMATICS

Here PASS stands for Peer Assisted Study Scheme and refers to sessions which are run by students for students. All students are fully encouraged to take advantage of their Lecturer's Office Hours and to ask questions during Lectures, but, in many cases students feel more comfortable asking questions to other students. Check your e-mails, but, there should be typically 5 hours of PASS sessions per week where Year 2/3/4 students volunteer to act as PASS Leaders to provide support for their fellow students.

MATHEMATICS LEARNING CENTRE

The Mathematics Learning Centre (MLC) is located in Room 116 of the Watson building. This is a superb space which combines computer access, comfy social space with a considerable amount of study area which students can usually access from 8am-6pm throughout termtime. Mathematics students are lucky to have access to such a convenient space and this means that they must accept that this room will occasionally have to be be booked out for other activities such as Applicant Visitor Days.

Postgraduate Assistants will be available to provide support to students. Please see the rota posted during the term time which will indicate the timetable and specialty area of the support provided by the postgraduate assistants.

MATHEMATICS SUPPORT CENTRE

The Mathematics Support Centre is located in the new Main University Library. It will provide drop-in sessions to support all students across the University in Mathematics. The drop-in sessions are expected to start from 3 October 2016. Consult the helpdesk in the new Main University Library for more details. A summary of the help available is given below.

Do you need help with the mathematics and statistics content of your course? Mathematics and statistics are relevant to many discipline areas, however, many students experience difficulties with these subjects as they begin their university studies. The University of Birmingham provides a university-wide mathematics support centre where all students can receive additional help with the mathematical and statistical content of their courses. This support is available to all students in the University, including students from the School of Mathematics.

You can drop-in to the mathematics support centre anytime during its hours of opening (please check the website for details) and receive one-to-one help with any mathematics or statistics based problem; there is no need to make an appointment. The support centre provides a relaxed and friendly environment where experienced mathematicians will help you with any mathematical difficulties you may have, and help develop your mathematical confidence. The drop-in support is particularly targeted at foundation and first-year undergraduate students from all disciplines and programmes of study within the University, and at students from other year groups identified as having particular difficulties with basic mathematical and statistical techniques.

For further details on the centre, including its location and opening times or to find out more about the support on offer, please visit: http://www.intranet.birmingham.ac.uk/asc.

Additionally, there are a range of mathematics and statistics resources freely available online that you might find helpful if you need to revise or revisit a particular topic: http://www.mathcentre.ac.uk and http://www.mathtutor.ac.uk

CAREERS SUPPORT

As you no doubt know a degree in mathematics opens the door to a wide variety of career paths. On the other hand this means that it can be difficult to decide which options are most attractive to you. Some of you may have a clear idea of your future career direction, but if not, then there will be plenty of support to help you research the range of opportunities open to you.
Jointly with the Careers and Employability Centre (CEC), the School of Mathematics provides a great deal of support to assist with your career planning and to help you develop your employability skills. This gives you the opportunity to get information and advice about a wide range of careers and employers, and find out about options for work experience and internships. You will also be able to get support throughout the application process, from advice on application forms and CVs through to hints and tips on interviews and assessment centres.
During term time there are designated times when a Careers Adviser is available in the Mathematics Learning Centre (MLC) for drop-in appointments; you can also make an appointment to see a Careers Adviser in other locations within the College of Engineering and Physical Sciences (EPS). To find out how to make an appointment see website for the EPS employability team http://www.as.bham.ac.uk/careers/college/eps.shtml where you can also search for job vacancies, find out about careers events and employer presentations organised by CEC as well as accessing a wide range of useful career related links. The Careers Advisers will be able to help you to find out more information about positions you are interested in and provide advice on all stages of the application process.

There is a structured programme of careers events organised by the School of Mathematics especially for mathematics students. There is a yearly Maths Careers Fair held in October where you can meet employers particularly interested in mathematics graduates. Careers Advisers come to the School of Mathematics to give careers planning lectures to inform you about career options and the steps you should take in order to achieve your career goals; some of these presentations are compulsory and included on your timetable.

In addition there are employer led skills workshops to assist you with the application process. All of these events are advertised on notice boards and via email.

The Personal Skills Award (PSA) is a scheme designed by CEC to improve your employability skills. You can find out about the PSA at: http://www.as.bham.ac.uk/psa

If you are interested in starting your own business then the Entrepreneurship and Innovation (EI) team in CEC will be able to help. You can find out about EI at: http://www.as.bham.ac.uk/ei

You can get a lot of information about careers planning and employability from the CEC website and the College of EPS careers team website:
http://www.as.bham.ac.uk/careers
http://www.as.bham.ac.uk/careers/college/eps.shtml

Or from the careers page on the School of Mathematics website:
http://www.birmingham.ac.uk/schools/mathematics/careers/index.aspx

Other websites that you may find useful include:

Prospects	http://www.prospects.ac.uk
TARGET jobs	http://targetjobs.co.uk
ALLABOUTCAREERS	http://www.allaboutcareers.com

PRIZES AND SCHOLARSHIPS

The School of Mathematics wants to become a preferred destination for all quality students in Mathematics. But admitting quality students is not the end point. We must be able to differentiate between excellence and good amongst our students and foster this excellence as a beacon for others to aim for. Therefore the School offers a number of prizes to recognise promising and distinguished students.

In addition, the University has in its gift a number of scholarships for second and subsequent year students for which the School can make nominations (in competition with nominees from other Schools in the Science/Engineering group).

The Corbett Prize
Awarded to the most promising and distinguished third and fourth year student (one for each year) reading for a Single Honours degree in the School of Mathematics and for the Joint Honours degree in Mathematics and Computer Science.

The Calderwood Prize
Awarded to the student who is most distinguished in algebra at the end of the first year. It is open equally to students reading for a Single Honours degree in the School of Mathematics or for a degree in which mathematics is combined with another subject. The prize is provided from subscriptions made by past students and colleagues to acknowledge the service to the University of the late Dr Nora Calderwood, Lecturer in the Department of Pure Mathematics from 1920 to 1963.

The Allied Maples Prize in Industrial Mathematics
Provided by Allied Maples Ltd. It is awarded annually to a third or fourth year undergraduate in the School of Mathematics for meritorious and promising work in the field of industrial or commercially applicable Mathematics.

The Andrew King Prize
Awarded for outstanding performance in Applied Mathematics by a student sitting their final year of a programme in Mathematics (single honours, joint honours or major/minor) run by the School of Mathematics or successor school. In the case of distinction needing to be made between third and fourth year students, or in any similar situation, priority should be given to the student who has been examined at the more advanced level. The prize is founded in memory of the late Professor Andrew King, who was a Professor in Applied Mathematics.

The Austin Prize
Awarded to a Single Honours student of high merit in the School of Mathematics at the final honours examination for the BSc, BA or MSci degrees. The recipient of a Corbett prize is not eligible for this award and it will normally be given to a student who has shown distinction in Pure Mathematics. The prize was founded in memory of the late W H Austin MA, lecturer in Mathematics.

The Frank Downton Prize
Awarded to a final year student in the School of Mathematics for an outstanding performance in project or practical work in Statistics. It is provided from contributions made by friends, colleagues and former students in memory of Professor Frank Downton, Professor of Statistics 1970-1984, and in recognition of his distinguished service to the University and his many contributions to statistical science.

The Kuttner Prize
Awarded to the Single Honours student in the School of Mathematics who, in the final Honours examination for the BSc or MSci degrees, returns the best performance in Mathematical Analysis. The prize is provided from contributions made by friends, colleagues and former students to acknowledge the long and distinguished association with the Department of Pure Mathematics of the late Professor Brian Kuttner, Professor of Mathematical Analysis 1969-1975 and a member of the academic staff from 1932.

The James Mann Prize
Awarded to the student with the best fourth year applied project (open to those students doing a project supervised by a member of the Applied Mathematics staff) on the recommendation of the head of group in consultation with the external examiner provided there is a project of sufficient merit. James Mann was a gifted undergraduate and postgraduate who died from leukaemia during his PhD studies. This prize is founded in memory of his talent for research, his analytical skills and positive attitude.

The IMA Prizes
Awarded to the best two graduating Single Honours students in the School of Mathematics.
John Avins Scholarship
Awarded to undergraduates (first and second year) in the Science Schools who have attended a secondary school in Birmingham.

UNIVERSITY LIBRARY

The University of Birmangham has significantly invested in a new and improved Main University Library. A great university deserves a great library. Opening on 19 September 2016 at 10:30, our new building offers a light-filled, inspirational learning environment, where students will study in ways that suit them and researchers will have access to everything they need all in one place.

Here are some of the highlights:
- Popular books and resources arranged on open shelves

- A power point at every study desk
- Hundreds of PCs, with over 150 bookable
- Nearly 100 loanable laptops for students and staff
- Staff on every floor, ready to help
- A suite of rooms dedicated to researchers
- 50km of shelving on the lower ground floor for research collections
- Knowledgeable Library Services staff ready to welcome you

The Main Library, which is the responsibility of Information Services, houses the principal collection in the University of books on the various branches of the mathematical sciences. As part of the induction process, you have a talk by a member of staff from the Main Library on its use and on the use of other services for which Information Services is responsible.The short loan collection contains books which are in high demand and which have been placed in that collection on the recommendation of the School. Students may make suggestions of titles that might be included in the short loan collection either through the Staff Student Committee or directly to the School Library Officer.

All services provided by the new Main University Library are described online via the following link: https://intranet.birmingham.ac.uk/as/libraryservices/library/news/index.aspx

SUPPORT FOR YOUR STUDIES

Finding Material Discovery system *FindIt@Bham*, is your gateway to all of our resources, both print and electronic: www.findit.bham.ac.uk.

Reading Lists The Library Services reading list system highlights the number and availability of texts on your reading lists, saving you time checking for each one individually: www.readinglists.bham.ac.uk.
Subject Advisors are librarians with a discipline focus who are available to help you make the most of Library Services. They provide help, advice, training, support and documentation to students undertaking research, project work and dissertations; and can also provide advice on referencing and avoiding plagiarism. You can book a confidential individual appointment or use Skype.
http://.intranet.birmingham.ac.uk/subjectsupport
The Academic Skills Centre (ASC) offers development opportunities and support for all undergraduate students in mathematics, academic writing, time-management, reflective and critical thinking and a broad range of other academic skills; and also runs the University's peer assisted study scheme (PASS). The ASC is located on the first floor of the Main Library.
Contact details: 0121 414 3666 and asc@contacts.bham.ac.uk
https://intranet.birmingham.ac.uk/asc
https://intranet.birmingham.ac.uk/maths-centre
https://intranet.birmingham.ac.uk/as/libraryservices/pass
The Digital and Technology Skills team offers a wide range of courses and technology training solutions to meet the needs of all students.
https://.intranet.birmingham.ac.uk/as/libraryservices/library/skills/digitaltechnologyskills/index.aspx

Library Services staff at information desks and out and about in University of Birmingham libraries are always happy to answer your questions. You can also use our Just Ask! service to send an instant message and talk to a librarian live. Just Ask! is available via the my.library tab on the student portal at www.my.bham.ac.uk and on the Library Services web site at http://intranet.birmingham.ac.uk/justask

COURSE STRUCTURE - AN OVERVIEW

Some definitions
As in all good mathematics, we begin by setting out the meaning of the jargon we use!

Programme of study
A programme of study consists of a set of modules which together have a defined set of learning outcomes, including intellectual and practical skills, which a student must complete to the satisfaction of a Board of Examiners in order to qualify for a degree.

Module
A module is a coherent and identifiable unit of learning and teaching with defined learning outcomes and which generates a single mark. A module can either be worth 10, 20, 30 or 40 credits, with 20, 30 and 40 credits modules spread across the Autumn Term and Spring Term and 10 credit modules taught during a single term.

Credits
The credit value of a module indicates the notional number of study hours required to achieve the learning outcomes set out for that module. One credit represents 10 notional hours of learning so, for example, to achieve the learning outcomes of a 20 credit module requires a notional 200 hours of learning. Each year of a standard full-time undergraduate programme comprises modules whose credit values total 120. The award of the credits associated with a module certifies that the learning outcomes of the module have been achieved; to achieve these, a student must gain an overall mark of at least 40% (50% for level M modules) for the module (and have completed other requirements, if any, to the satisfaction of the Board of Examiners). For full time students, progress decisions are made at the end of each year or stage. For MSci students, Stage 3 embraces years 3 and 4.

Module Classification
Modules are classified at different levels:
Certificate level (C) - principally in Stage 1 and not normally counting towards degree classification
Intermediate level (I) - principally in Stage 2 and counting towards degree classification
Honours level (H) - principally in Stage 3 and counting towards degree classification
Masters level (M) - fourth year modules for those taking an undergraduate master's degree and counting towards degree classification for such degrees

Degree requirements
(i) HONOURS Degree of BSc/BA
These require a student to have obtained 320 credits including 100 credits at level H together with a 'final' average mark of at least 40%. The 'final' average mark is a weighted average of the marks obtained in Stage 2 and Stage 3 modules using the weighting 1:3. Where credit in a Stage 2 module has been obtained on a re-sit, the mark used in the calculation of the 'final' average mark will be 40%. If any failed modules at Stage 2 are involved, the mark used for such modules in the calculation of the 'final' average mark will be the highest mark obtained.

Degree classes are awarded as follows:
>=70% for First Class [1]
60-69% for Second Class Upper [2(i)]
50-59% for Second Class Lower [2(ii)]
40-49% for Third Class [3]

A profiling system may be used in borderline cases. Adjusted regulations allow the award of a BSc degree with fewer than 320 credits overall or less than 100 credits at level H, but with a penalty on the

degree classification.
(ii) HONOURS Degree of BSc in Mathematics with Study in Continental Europe. The requirements are the same as for the BSc, but bearing in mind that:
(a) the year abroad is seen as an additional stage between Stage 2 and Stage 3
(b) the courses taken during the year abroad contribute to the Stage 2 mark.

(iii) PASS Degree of BSc/BA
These require a student to have obtained 300 credits including at least 80 credits at level H.

(iv) Diploma of Higher Education
A final year student registered for a BSc degree who fails to meet the requirements for the award of a degree will be awarded a Diploma of Higher Education if he/she has accumulated at least 200 credits. A Certificate of Higher Education will be awarded if the number of credits accumulated is less than 200 but at least 100.

(v) HONOURS Degree of MSci
These require a student to have obtained 440 credits comprising at least 200 credits at stage 3 (100 credits in year 4) with a 'final' average mark of at least 40%. The 'final' average mark is a weighted average of the marks obtained in the modules taken in years 2, 3 and 4 using the weighting 1:2:2. Where credit in a Stage 2 module has been obtained on a re-sit, the mark used in the calculation of the 'final' average mark will be 40%. If any failed modules at Stage 2 are involved, the mark used for such modules in the calculation of the 'final' average mark will be the highest mark obtained.

Degree classes are awarded as follows:
>=70% for First Class [1]
60-69% for Second Class Upper [2(i)]
50-59% for Second Class Lower [2(ii)]
40-49% for Third Class [3]

A profiling system may be used in borderline cases. Adjusted regulations allow the award of the MSci degree with fewer than 440 credits overall, or fewer than 200 credits at stage 3 (years 3 & 4), but with a penalty on the degree classification including the award of a Pass Degree of MSci.
A student who does not achieve the standard required for the award of the Honours degree of MSci may be awarded an Honours degree of BSc provided he/she has obtained a minimum of 320 credits. The 'final' average mark will be calculated from Stage 2 and all Stage 3 modules weighted in the ratio 1:2:2.

A student who withdraws after the end of the third year but before the Year 4 examination period may be awarded an Honours Degree of BSc provided he/she has obtained at least 320 credits including 100 credits at level H and a 'final' average mark of at least 40%. In such cases, the 'final' average mark will be calculated from Stage 2 and Year 3 modules weighted in the ratio 1:3.

COURSE STRUCTURE - YEAR 1

Single Honours
The majority of teaching in the School takes the form of lectures but you will also spend time in exercise classes, supervision classes and computing laboratories. In a typical week in the Autumn Term, a typical first year Single Honours student in Mathematics will at least participate in:

- 10 lectures, each of approximately 50 minutes;
- 1 hour of exercise classes/tutorials;
- 2 hours of workshop-type activity;

- 2 hours in a computing laboratory;
- 1 hour feedback session with your Personal Tutor.

Of course, it is expected that you will work outside these sessions. As a rough guide, we estimate that each 'one hour' lecture requires another two hours of private study.

Students on the Single Honours degree programme will have compulsory modules in the first year whose credit values total 100, as detailed below. If you are registered for either the BSc or the MSci degree in Mathematics, you will complete your first year programme by taking 20 credits worth of modules spread across the Autumn and Spring terms given by another School or Department and chosen from the Widening Horizons Modules (WHM) handbook. For students registered on the BSc programme in Mathematics with Study in Continental Europe, their first year programme is completed by taking a 20 credit linked module in the appropriate foreign language.

Mathematics (G100 / G103); Mathematics with study in EU (G141)

Compulsory Modules

School Code	Banner Code	Module Title	Credits	Term
1RAC	06 25660	Real Analysis & the Calculus	30	Both
1VGLA	06 25664	Vectors, Geometry & Linear Algebra	20	Both
1AC1	06 25629	Algebra & Combinatorics 1	20	Both
1MMPS	06 25662	Mathematical Modeling & Problem Solving	10	Autumn
1Mech	06 25661	Mechanics	10	Spring
1PS	06 25663	Probability and Statistics	10	Spring

Joint Honours

The majority of teaching in the School takes the form of lectures but you will also spend time in exercise classes, supervision classes and computing laboratories. In a typical week in the Autumn Term, a typical first year Joint Honours student taking 60 credits in Mathematics will participate in the following mathematical work:

- 6 lectures, each of approximately 50 minutes;
- 1 hour of exercise classes/tutorials;
- 2 hours in a computing laboratory;
- 1 hour feedback session with your Personal Tutor.

Of course, it is expected that you will work outside these sessions. As a rough guide, we estimate that each 'one hour' lecture requires another two hours of private study. Students on a Joint Honours degree programme (BSc) or a combined Honours degree programme (BA) will typically take a half programme (60 credits) in Mathematics and a half programme (60 credits) in the other discipline. Students on a Major/Minor programme where Mathematics is the major component will take 80 credits in Mathematics. Students in Natural Sciences and students on the Liberal Arts and Science programme will take 40 credits in Mathematics.

Mathematics and Computer Science (with year in Industry) (GG14 / GI11 / GGD4 / GG41)
Mathematics and Sports Science (GC17)
Theoretical Physics and Applied Mathematics (FG31 / F3DG)
Mathematics and French / Music / Philosophy (GR11 / GW13 / GV15)

Compulsory Modules

School Code	Banner Code	Module Title	Credits	Term
1RAC	06 25660	Real Analysis & the Calculus	30	Both
1VGLA	06 25664	Vectors, Geometry & Linear Algebra	20	Both
1Mech	06 25661	Mechanics	10	Spring

Natural Sciences (CFG0); Liberal Arts and Sciences (Y001)

Compulsory Modules

1RACm (20 credits) shares all the contact times with 1RAC (30 credits), but some material presented will not be examined. This will be advised during the lectures. However, to have the best foundation for later studies in Mathematics, students are encouraged to discuss with the Director of First Year Studies the option to register for 1RAC (30 credits).

School Code	Banner Code	Module Title	Credits	Term
1RACm	06 25764	Real Analysis & the Calculus	20	Both
1VGLA	06 25664	Vectors, Geometry & Linear Algebra	20	Both

Mathematics with Business Management (G1N2 / G1NF)

Compulsory Modules

School Code	Banner Code	Module Title	Credits	Term
1RAC	06 25660	Real Analysis & the Calculus	30	Both
1VGLA	06 25664	Vectors, Geometry & Linear Algebra	20	Both
1AC1	06 25629	Algebra & Combinatorics 1	20	Both
1PS	06 25663	Probability and Statistics	10	Spring

Module Selection

All students will automatically have been registered for the compulsory modules. Students on a Single Honours Programme should have registered for a Widening Horizon Module (WHM) before the start of the first week of term. Subsequently, students may wish to change their selection.

All changes are subject to the approval of the Director of First Year Studies, and changes to registration for a Widening Horizon Module (WHM) need to be countersigned by the lecturer of the WHM the student would like to register for.

Change of Module forms are available from the Teaching Support Office in room 214. Students have to make changes to their choice of WHM by Friday, 7th October 2016, the end of the second week of the Autumn Term.

Feedback and Learning Support

Learning is an interactive activity, whereby a student will endeavour to show understanding of the taught material through answering set problems or tasks, or other problems found in, e.g. textbooks. Feedback on these will allow the student to correct misunderstandings or clarify methodologies. The School of Mathematics therefore allows for such a learning cycle to be completed before testing the student on their knowledge and understanding. Assessments that form part of the learning process and do not contribute to the final mark are called “formative assessments”, whilst assessments that do contribute to the final module mark are called “summative”. Of course, summative assessments, such as class tests and examinations, continue to have a formative aspect, i.e., you can still learn from them. In the first year, formative assessments are found in the weekly problem sheets, the computer laboratories and on-line practice questions. Summative assessments are typically through class tests, examinations and on-line assessments.

Feedback and support for all Year 1 modules - apart from MMPS (Mathematical Modeling & Problem Solving) and the Widening Horizons Module - is co-ordinated through shared support sessions and tutorials. The teaching style in 1MMPS (Mathematical Modeling & Problem Solving) is of a different nature and different formative and summative assessment types are being used. Each Widening Horizons Module has its own feedback and support mechanism, which will be explained by the module lecturer at the start of the module.

Formative Assessments

Problem Sheets

Problem sheets with problems from a selection of the modules 1RAC (Real Analysis & the Calculus, 30 credits), 1RACm (Real Analysis & the Calculus, 20 credits), 1VGLA (Vectors, Geometry & Linear Algebra), 1AC1 (Algebra and Combinatorics), 1Mech (Mechanics - Spring Term only) and 1PS (Probability and Statistics - Spring Term only) will be available on each Wednesday. Students are expected to formulate solutions by the start of the following week.

Each student is allocated one academic hour (50 mins) support session on Monday or Tuesday, where they can ask for clarification or support on these problems, or any other issue that may have arisen from the course so far. These sessions will be supported by Postgraduate Teaching Assistants. It is important that the problems have been attempted prior to this session, as one otherwise has not made full use of this opportunity for feedback. In addition, there is further support available through the drop-in sessions, either those organized by the School of Mathematics (MLC - Mathematics Learning Centre) or by the University (Main Library). Solutions to these problems will need to be submitted on the Wednesday following this support session.

Each student will also have been allocated a Personal Tutor who they will meet weekly for one academic hour (50 mins). During these sessions, the graded answers to the problems will be returned and discussed and there is an opportunity to seek further clarification.

Computer laboratories

Every student has been allocated to a two hour weekly computer lab. These are used to support the teaching and learning in the Year 1 modules. They will contain a variety of activities, from learning LaTeX, the best way to type mathematics, to exploring concepts or properties in mathematics through Maple, a computer algebra software. These sessions may have their own formative assessments, sometimes through on-line quizzes.

On-line assessments

Students will have access to a number of on-line quizzes, using computer aided assessment (CAA) software called STACK. This provides immediate feedback on your answers and allows you to further practice typical problems. They form an essential preparation for the on-line quizzes that will form part of the summative assessment.

The assignment of students to support sessions and computer labs will be announced during Welcome Week and placed on the CANVAS section for Year 1. It is important that students attend the allocated session. If there are good reasons why a student cannot attend an allocated session (or sessions), they need to contact the Director of First Year Studies prior to the session.

Summative Assessment

We hope that all our modules provide you with enjoyable and stimulating mathematics. However, at the end of the day, you must show some evidence of having taken some of it in! More seriously, potential employers will look for evidence of your ability. Less obviously, examinations may be used to monitor how effective the School is in teaching its degree programmes.

For most 20 credit modules given by the School of Mathematics, the assessment consists of a written examination (which apart from a few exceptions is three hours in length) together with assessments during term-time. Detailed assessment arrangements for a module will be given out by the lecturer at the beginning of the module and it is a student's responsibility to ensure that he/she is familiar with these. If you are not told the specific assessment arrangements by the lecturer at the beginning of a module, please approach the lecturer immediately. If they are still not forthcoming, you should inform the Director of First Year Studies.

The assessments during term time for the modules 1RAC (Real Analysis & the Calculus), 1RACm (Real Analysis & the Calculus (20 cr)), 1VGLA (Vectors, Geometry & Linear Algebra), 1AC1 (Algebra and Combinatorics), 1Mech (Mechanics - Spring Term only) and 1PS (Probability and Statistics - Spring Term only) will constitute of two class tests, one of which may be an on-line test. The first Class Test (a short written examination) is scheduled for the fifth week of term.

The breakdown of Stage 1 marks is:

School Code	Formal Written Examination	Assessment during Term Time
1RAC	80% based on one 3hr exam in the Summer Term	20% based on Class Tests
1RACm	80% based on one 3hr exam in the Summer Term	20% based on Class Tests
1VGLA	80% based on one 3hr exam in the Summer Term	20% based on Class Tests
1AC1	80% based on one 3hr exam in the Summer Term	20% based on Class Tests
1MMPS	100% based on work during Term Time	
1Mech	80% based on one 1.5hr exam in the Summer Term	20% based on Class Tests
1PS	80% based on one 1.5hr exam in the Summer Term	20% based on Class Tests

For students taking both 1Mech and 1PS, the two 1.5 hour examinations may take place in a single 3 hour sitting.

In addition to the assessments that contribute to the module mark, modules may have required elements of assessments, i.e. items of assessments that will need to be completed to a prescribed standard before credit can be awarded. These include on-line competency tests in a number of topics and attendance at the weekly tutorials. Information about these on-line competency tests will be distributed at least three weeks in advance to allow for ample revision time.

All assessment marks from both written examinations and assessments during term-time are provisional until confirmed by both the School Board of Examiners and the University Progress Board. The former meets in the last week of the Summer Term and the latter in the first week of the Summer Vacation. In order to ensure reasonable parity between results in different modules, the School of Mathematics may make adjustments to sets of marks obtained from assessments during term-time or from written examinations or from both.

Format of Current Examination Papers

The format and rubric of first year examination papers in the School of Mathematics follow a standard pattern, and an example is described below. These sample examination papers will be made available by the end of the Autumn Term.

Typically, First Year examination papers are divided into TWO sections, A and B. Section A consists of several compulsory questions of a relatively straightforward nature covering the whole syllabus and worth a total of 50 marks; Section B consists of four questions worth 17 marks each, which can contain more in-depth questions.

A typical rubric for a 20 credit module starts as:

Full marks may be obtained with complete answers to ALL questions in Section A (worth a total of 50 marks) and THREE (out of FOUR) questions from Section B worth 17 marks each. Only the best THREE answers from Section B will be credited. An indication of the number of marks allocated to parts of questions is shown in square brackets.

NOTE

It is School policy that solutions to previous examination papers are not available.

Credits

The award of credits associated with a module certifies that the learning outcomes associated with

that module have been achieved. To achieve these, a student must gain an overall mark of at least 40% for the module and have completed other requirements, if any, to the satisfaction of the Board of examiners.

Progression
To proceed to second year:
(i) a student registered on either the BSc programme in Mathematics or the MSci programme in Mathematics must have gained 100 credits including 1RAC (Real Analysis & the Calculus) and 1VGLA (Vectors, Geometry & Linear Algebra), and at least two of 1AC1 (Algebra and Combinatorics 1), 1Mech (Mechanics), 1PS (Probability and Statistics).

(ii) a student registered on the BSc programme in Mathematics with Study in Continental Europe must have gained 100 credits including 1RAC (Real Analysis & the Calculus) and 1VGLA (Vectors, Geometry & Linear Algebra), and at least one of 1AC1 (Algebra and Combinatorics 1), 1Mech (Mechanics), 1PS (Probability and Statistics).

(iii) all students registered for a programme involving 60 or more credits of Mathematics must have gained 100 credits including 1RAC (Real Analysis & the Calculus) and 1VGLA (Vectors, Geometry & Linear Algebra). The following additional requirements apply:

BSc in Mathematics with Business Management:
Passes in one of 1AC1 (Algebra and Combinatorics 1), 1PS (Probability and Statistics) is required.

MSci in Mathematics with Business Management:
Passes in one of 1AC1 (Algebra and Combinatorics 1), 1PS (Probability and Statistics) is required.

BSc in Theoretical Physics and Applied Mathematics:
a Pass in 1Mech (Mechanics) is required.

MSci in Theoretical Physics and Applied Mathematics:
a Pass in 1Mech (Mechanics) is required.

(iv) a student registered for a programme involving 40 credits of Mathematics must have gained 100 credits including 1RACm (Real Analysis & the Calculus, 20 credits) or 1RAC (Real Analysis & the Calculus, 30 credits) and 1VGLA (Vectors, Geometry & Linear Algebra). They can obtain full progression requirements from their 'home' School.

Important Notes for Students with Resits
(i) Students who fail to gain credit in any Stage 1 modules at the first attempt have the right to only one re-assessment in each failed module, normally in August/September 2017. When students need to resit three or more modules, these may be deferred to May/June 2018. Students should discuss this initially at their Summer Term Progress Review with their Personal Tutor and following that discussion see either the Director of First Year Studies or the Head of Education.

(ii) Students who fail to attend a resit and who do not defer a resit may be awarded a module mark of 0%, even if they obtained a higher mark at the first attempt. Students, who for good reason, are unable to attend a resit should request a deferral from the Extenuating Circumstances Officer prior to the examination.

(iii) Students are expected to take the resit examination to obtain credit in the module. For overseas students it may be possible to sit the examination overseas. It is important to obtain full credits as this may affect your final degree classification.

(iv) Students who after the resit opportunity in August/September 2017 still do not satisfy the requirements to proceed from Stage 1 to Stage 2 will be required to withdraw from their course. Students who are required to withdraw have the right of appeal against that decision.
(v) Following the successful re-sitting of a failed module, the mark used for the purpose of arriving at progress decisions and all future degree classifications will be capped at 40%. However if the actual mark achieved by a student on a resit is greater than 40%, it is that higher mark that will be recorded on his/her transcript.

(vi) Students will only be allowed one resit opportunity, and cannot repeat a module after two failures, unless there are sufficient extenuating circumstances.

COURSE STRUCTURE - YEAR 2

Year 2 studies contiunue to build upon the foundations introduced in Year 1. Single honours (G100/ G103) students are expected to take 80 credits worth of compulsory Mathematics modules and then choose 40 out of 60 credits worth of optional Mathematics modules.

For G141 students there are 80 credts worth of compulsory Mathematics modules, 20 credits worth of a compulsory Language course, and then a choice of 20 out of 60 credits worth of optional Mathematics modules.

Joint honours students split their modules between Mathematics and their other chosen subjects. In many cases Year 2 joint honours students will take cloned versions of modules taken by Year 1 Single honours students. The details are given below.

Mathematics (G100 / G103); Mathematics with study in EU (G141)

Compulsory Modules

School Code	Banner Code	Module Title	Credits	
2MVA	06 25667	Multivariable & Vector Analysis	20	
2RCA	06 25666	Real and Complex Analysis	20	
2LALP	06 25765	Linear Algebra & Linear Programming	20	
2NP	06 25669	Numerical Methods & Programming	10	
2MI	06 25668	Mathematics in Industry	10	
2LANG	TBC	Modern Language	20	(G141 ONLY)

Optional Modules - Choose two from three below (or one if G141)

School Code	Banner Code	Module Title	Credits
2S	06 25761	Statistics	20
2AC	06 25665	Algebra & Combinatorics 2	20
2DE	06 25670	Differential Equations	20

Mathematics with Business Management (G1N2 / G1NF)

Compulsory Modules

School Code	Banner Code	Module Title	Credits
2MVA	06 25667	Multivariable & Vector Analysis	20
2LALP	06 25765	Linear Algebra & Linear Programming	20

Optional Modules – choose exactly 40 from the following

School Code	Banner Code	Module Title	Credits
2S	06 25761	Statistics	20
2AC	06 25665	Algebra & Combinatorics 2	20

2NP	06 25669	Numerical Methods & Programming	10
1Mech2	06 27345	Mechanics	10
2MI	06 25668	Mathematics in Industry	10

Mathematics and Computer Science (with ind. year) (GG14 / GI11 / GGD4 / GG41)
Mathematics and Sports Science (GC17)
Mathematics and French / Music / Philosophy (GR11 / GW13 / GV15)

Compulsory Modules

School Code	Banner Code	Module Title	Credits
2MVA	06 25667	Multivariable & Vector Analysis	20
2LA	06 15552	Linear Algebra	10
1AC2	06 25665	Algebra & Combinatorics 1	20

Theoretical Physics and Applied Mathematics (FG31 / F3DG)

Compulsory Modules

School Code	Banner Code	Module Title	Credits
2MVA	06 25667	Multivariable & Vector Analysis	20
2LA	06 15552	Linear Algebra	10
2DE	06 25670	Differential Equations	20

Natural Sciences - 60 credits (CFG0)

Compulsory Modules

School Code	Banner Code	Module Title	Credits
2MVA	06 25667	Multivariable & Vector Analysis	20
2LA	06 15552	Linear Algebra	10

Optional Module – choose 30 credits from the modules below

please note that you will need to check the timetable to see if there are no clashes

School Code	Banner Code	Module Title	Credits
2RCA	06 25666	Real and Complex Analysis	20
1AC2	06 25665	Algebra & Combinatorics 1	20
1PS2	06 26709	Probability and Statistics	10
2NP	06 25669	Numerical Methods & Programming	10
1Mech2	06 27345	Mechanics	10
2LP	06 27516	Linear Programming	10

Natural Sciences - 40 credits (CFG0)

Compulsory Modules

School Code	Banner Code	Module Title	Credits
2MVA	06 25667	Multivariable & Vector Analysis	20
2LA	06 15552	Linear Algebra	10

Optional Module - choose one from two modules below

(please note that you will need to check the timetable to see if there are no clashes)

School Code	Banner Code	Module Title	Credits
1PS2	06 26709	Probability and Statistics	10
1Mech2	06 27345	Mechanics	10

Module Selection

Students should have made a provisional choice of optional modules at the end of the preceding Summer Term. Subsequently they may wish to or be required to make changes to their selection. All changes are subject to the approval of the Director of Second Year Studies. Change of Module forms

are available from the Teaching Support Office in room 214. Student may make changes to their choice of optional modules up to Friday, 7th October 2016, i.e., up to the end of the second week of the Autumn Term.

Back-Up Classes
Back-up classes are scheduled for all Stage 2 Mathematics modules. All second year modules have tutorial/examples classes associated with them and some also have practical classes. These classes are all included in the main timetable for the appropriate term.

Assessment
The final module marks for 2MI and 2NP are based 100% on continuos assessment throughout term time as detailed by the module lecturers. For all other stage 2 modules given by the School of Mathematics, the assessment combines a written examination together with coursework with an examination contribution of 80% and a coursework contribution is 20%. Detailed coursework assessment arrangements for a module will be given out by the lecturer at the beginning of a module and it is a student's responsibility to ensure that he/she is familiar with these. If you are not told the specific coursework assessment arrangements by the lecturer at the beginning of a module, please approach the lecturer immediately. If they are still not forthcoming, you should inform the Director of Second Year Studies.

All assessment marks from both written examinations and coursework are provisional until confirmed by both the School Board of Examiners and the University Progress Board. The former meets in the last week of the Summer Term 2016 and the latter in the first week of the Summer Vacation. In order to ensure reasonable parity between results in different modules, the Board of Examiners for the School of Mathematics may make adjustments to sets of marks obtained from coursework or from written examinations or from both.

Format of Current Examination Papers
The format and rubric of most second year examination papers in the School of Mathematics are described below. If there are any changes to these students will be notified before the start of the Summer Term.

The papers for these modules are three hours in length and have the following format. Papers are divided into TWO sections, A and B. Section A consists of several compulsory questions of a relatively straightforward nature covering the whole syllabus and worth a total of 50 marks; Section B consists of four questions worth 17 marks each.

The rubric starts as:
Full marks may be obtained with complete answers to ALL questions in Section A (worth a total of 50 marks) and THREE (out of FOUR) questions from Section B (worth

17 marks each). Only the best THREE answers from Section B will be credited. All these papers are 3 hours in length.

Copies of previous examination papers can be obtained from the student portal and from the School of Mathematics Examinations Canvas Section.

It is School policy that solutions to previous examination papers are not made available to students.

Credits
The award of credits associated with a module certifies that the learning outcomes associated with a module have been achieved. To achieve these, a student must gain an overall mark of at least 40%

for the module and have completed other requirements, if any, to the satisfaction of the Board of Examiners.

Progression
In all programmes to proceed from Stage 2 to Stage 3, a student must have accumulated a total of at least 200 credits from Stages 1 and 2 including a total of at least 100 credits from Stage 2 and satisfy the additional requirements specified for their particular degree programme as listed below.

All BSc/MSci Programmes
In order to be eligible to proceed to an MSci programme, a student must also have:
- an overall weighted average in Stage 2 of at least 55%
- acumulated a total of at least 220 credits from Stages 1 and 2
- gained at least 100 credits in Stage 2 at the first attempt.

BSc in Mathematics with Study in Continental Europe
The general progression requirements of at least 100 credits from Stage 2 and a total of at least 200 credits from Stages 1 and 2 must be satisfied at the first attempt at Stage 2 assessments. Credit must have been obtained in a 20-credit Language module.

BSc in Mathematics with Business Management
Credit must have been obtained in: 2LALP

MSci in Mathematics with Business Management
Credit must have been obtained in: 2MVA and 2LALP

BSc and BA Joint Honours
In addition, in order to proceed, a student must have met the progression requirements set by his/her other School.

These should be available from the other Schools concerned and will also be found in the appropriate 'virtual' handbook on the Web page for that School.

Other Joint Honours
Full progression requirements can be obtained from your 'home' School. They can also be found in the appropriate 'virtual' handbook on the Web page for the appropriate School.

Important Notes for Students with Re-sits
(i) Students who fail to gain credit in all Stage 2 modules at the first attempt have the right to only one re-assessment in each failed module, normally in August/September 2017. The maximum recorded mark obtainable from a re-sit is 40%.

(ii) Students who fail to attend a re-sit and who do not defer a re-sit will be awarded a module mark of 0%, even if they obtained a higher mark at the first attempt. Students, who for good reason, are unable to attend a re-sit should request a deferral from the Extenuating Circumstances Officer.

(iii) Students are expected to sit the re-sit examination to obtain credit in the module. For overseas students it may be possible to sit the examination overseas. It is important to obtain full credits as this may affect your final degree classification

(iv) Students who after the re-sit opportunity in August/September 2017 still do not satisfy the requirements to proceed from Stage 2 to Stage 3 will be required to withdraw from their course. Students who are required to withdraw have the right of appeal against that decision.

(v) Following the successful re-sitting of a failed module, the mark used for the purpose of arriving

at decisions on progress and final degree classification will be capped at 40%. However if the actual mark achieved by a student on a re-sit is greater than 40%, it is that mark that will be recorded on his/her transcript.

(vi) Students will only be allowed one re-sit opportunity, and cannot repeat a module after two failures, unless there are sufficient extenuating circumstances

COURSE STRUCTURE - YEAR 3

The foundations from Years 1 and 2 allows for much greater module choice in Year 3. Students can choose to focus on one topic area in Mathematics, or they can continue to examine a range of topics depending upon their performance and understanding from Years 1 and 2.

Module Selection
The Module 3RSM (Research Skills in Mathematics) is compulsory for all Single Honours students in the third year of the BSc and MSci programmes in Mathematics. This is a 20-credit module spread over two terms.

A provisional choice of modules should have been made at the end of the Summer Term 2016. Subsequently a student may wish to, or be required to, make changes to his/her choice. All changes are subject to approval by the appropriate Director.

'Change of module' forms are available from the Teaching Support Office.

Students may make changes to their choice of modules up to Friday, 7th October 2016, i.e. up to the end of the second week of the Autumn Term.

For students on joint programmes, absence of timetable clashes can only be guaranteed if you restrict your module choices to those modules each school has timetabled in their allocated blocks. An up-dated list of available modules is available on the 'Important Information' Canvas Section. Regulations for BSc projects will be made available to those students who want to register for a project.

Degree programme regulations are accessible on the web at:
http://www.as.bham.ac.uk/legislation/regulations.shtml

Assessment
For all modules delivered by the School of Mathematics that are on offer to students covered by this handbook, the assessment consists of a written examination together with coursework except for 3G0 (Project) and 3RSM (Research Skills in Mathematics) which are assessed entirely by 'coursework'. The coursework contribution in most cases is 10%. Detailed coursework assessment arrangements for a module will be given out by the lecturer in charge at the beginning of a module and it is a student's responsibility to ensure that he/she is familiar with these. If you are not told the specific coursework assessment arrangements at the beginning of a module, please approach the lecturer in charge immediately. If they are still not forthcoming, you should inform the Director of Third Year Studies.

All assessment marks from both written examinations and coursework are provisional until confirmed by both the School Board of Examiners and the University Progress Board. The former meets in the last week of the Summer Term 2017 and the latter in the first week of the Summer Vacation. In order to ensure reasonable parity between results in different modules, the School Board of Examiners may make adjustments to sets of marks obtained from coursework or from written examinations or from both. When the School Board of Examiners makes a recommendation "Notwithstanding Regulations",

the student will not be given a provisional result but will be informed of the outcome after the University Progress Board has met.

Progression
Students on BSc programmes will be awarded Degrees or Diplomas based upon their academic performance. There are no formal progression requirements between Years 3 and 4 for students on MSci programmes. Students who obtain a Year 3 average mark of less than 60% are strongly encouraged to graduate with a BSc degree after Year 3, instead of progressing to Year 4 of the MSci programme.

Format of Examination Papers
The format and rubric of third year examination papers in the School of Mathematics (most of which are three hours in length) are described below. If there are any changes to these students will be notified before the start of the Summer Term.

(i) Most Level H modules taught by the School of Mathematics are 20 credits and the final papers are three hours in length and all consist of six questions with 25 marks each.

The rubric starts as follows:
Full marks may be obtained with complete answers to FOUR questions (out of SIX). Only the best FOUR answers will be credited.
(ii) The examinations for 10 credit Level H modules taught by the School of Mathematics are typically combined as pairs into 3 hour examination. Section A of the paper will cover one of the 10 credit modules and Section B of the paper will cover the other 10 credit modules. Students are nominally expected to spend 90 minutes each on Sections A and B. Each section will consist of 3 questions worth 25 marks each.

The rubric starts as follows:
For each module, full marks will be obtained with complete anwers to TWO out of THREE questions in Section A and TWO out of THREE questions in Section B. Only the best TWO answers from each section will count towards the corresponding module.
(iii) Phys3A09
This module is taught by the School of Physics and Astronomy and may be examined in two separate papers. Refer to the lecturer(s) for confirmation on the examination format.

(iv) 2NP3
This module will be evaluated only on work done during the term.

NOTE
Copies of previous examination papers can be obtained from the student portal and from the School of Mathematics Examinations Canvas Section.

Solutions to previous examination papers are not available. Remember that there are no resits in modules taken in Stage 3.

COURSE STRUCTURE - YEAR 4

Year 4 combines a 40 credit dissertation with 80 cresits worth of taught modules.
Regulations for Undergraduate MSci Projects
Please refer to the Final Year project booklet for these regulations.

Module Selection
There are no compulsory taught modules in the fourth year of an MSci programme. However all students are required to undertake a 40-credit project and 80 credits worth of other level M modules. Students intending to graduate with a 'named' degree in a specific area of Mathematics (i.e., in one of Applied Mathematics, Management Mathematics, Mathematics & Statistics and Pure Mathematics) must complete a project in the 'named' area of their choice (that area being Statistics in the case of the 'named' degree in Mathematics & Statistics) and take a certain minimum number of other modules in the area over Stage 3 as a whole (see section on degree requirements).

Normally modules totaling 60 credits (assuming a notional splitting of the 40-credit project) should be taken in each term.

A provisional choice of modules should have been made at the end of the preceding Summer Term. Subsequently a student may wish or be required, to make changes to his/her choice. All changes are subject to approval by the MSci Director. 'Change of module' forms are available from the Teaching Support Office.

Students may make changes to their choice of modules up to the end of the second week of the Autumn Term. Students may make changes to their choice of 10-credit Spring Term modules up to the end of the first week of the Spring Term. Degree programme regulations are accessible on the web at: http://www.as.bham.ac.uk/legislation/regulations.shtml

Module information can be accessed on the School of Mathematics 'Important Information' Canvas Section.

Assessment
For most modules delivered by the School of Mathematics that are on offer to students covered by this handbook, the assessment consists of a written examination together with coursework, the coursework contribution usually being 10%.

Detailed coursework assessment arrangements for a module will be given out by the lecturer in charge at the beginning of a module and it is a student's responsibility to ensure that he/she is familiar with these. If you are not told the specific coursework assessment arrangements at the beginning of a module, please approach the lecturer in charge immediately. If they are still not forthcoming, you should inform the MSci Director.

All assessment marks from both written examinations and coursework are provisional until confirmed by both the School Board of Examiners and the University Progress Board. The former meets in the last week of the Summer Term and the latter in the first week of the Summer Vacation. In order to ensure reasonable parity between results in different modules, the School Board of Examiners may make adjustments to sets of marks obtained from coursework or from written examinations or from both.

When the School Board of Examiners makes a recommendation "Notwithstanding Regulations" the student will not be given a provisional result but will be informed of the outcome after the University Progress Board has met.

Format of Examination Papers
The format and rubric of fourth year examination papers in the School of Mathematics are described below. If there are any changes to these students will be notified at the start of the Autumn Term. Most papers are three hours in length and consist of SIX questions worth 25 marks each.

The rubric is as follows:
Full marks may be obtained with complete answers to FOUR questions (out of SIX). Credit will be given for the best FOUR answers only.

Exceptions are all 10 credit modules.

The paper for these modules is 1hr 30 minutes in length and all consist of three questions worth 25 marks each.

The rubric starts as follows:
Full marks may be obtained with complete answers to TWO questions (out of THREE). Only the best TWO answers will be credited.

NOTE
Copies of previous examination papers can be obtained from the student portal and from the School of Mathematics Examinations Canvas Section. Solutions to previous examination papers are not available. Remember that there are no re-sits in modules taken in Stage 3.

UNIVERSITY LEGISLATION

Student Charter
The Student Charter sets out the general principles of the partnership between students, the University of Birmingham and the Guild of Students. It applies to all registered students of the University following taught or research programmes, whether studying on or off campus.

- The University of Birmingham's student charter can be found at www.birmingham.ac.uk/undergraduate/birmingham/student-charter.aspx
- The following information is a summary of that which can be found at the website listed above. It is necessary for you read the information on this website to fully understand what is stated in the student charter

Student Responsibilities
All students have a responsibility to:

- Make the most of their programme of study, their University experience and the other opportunities that the University and the Guild of Students have to offer
- Treat all members of the University community with respect
- Represent the University as responsible ambassadors through their good conduct on and off campus and ensure their actions have a positive impact on the University and the local and wider community
- Participate in the University's culture of learning which is based upon critical enquiry, debate and self-motivation
- Pursue their academic and professional studies in a diligent, honest and responsible manner
- Engage with the University in formulating their own education and career goals and monitor their progress towards these goals
- Engage with University initiatives to promote environmental sustainability.
- Comply with the University's policies and procedures

University Responsibilities
The University has a responsibility to ensure all students:

- Can learn within a framework that facilitates their active learning and helps them achieve the outcomes of their programme of study
- Can make use of appropriate learning resources and support so that they can take responsibility for their own learning, and improve their knowledge, understanding, career development, skills and

competencies

- Will have a personal tutor/supervisor, who will provide regular opportunities to discuss academic assessment, progress and personal development
- Can receive effective and timely feedback on their academic work
- Can enjoy a safe place on campus in which to work, live and study and which considers the impact of its activities on the environment and on the local community
- Can access professional welfare services which are designed to support all students
- Can benefit from a range of sport and recreational opportunities on campus to improve their overall wellbeing
- Can obtain clear information on University fees and have access to advice and guidance about student loans, hardship funds and other student funding
- Can express and debate their views freely within the law
- Can participate in the Student Representation System
- Can obtain information on professional and regulatory requirements relevant to their programme of study

Guild of Students Responsibilities

The Guild of Students has a responsibility to:

- As a student led organisation, be the recognised voice of the student body, and campaign on their behalf
- Provide a safe and enjoyable space for members and offer opportunities for getting involved in societies, student groups, volunteering and safe employment to promote personal development
- Welcome new and returning students to the University of Birmingham and support them in their transition to and from university
- Promote the importance of personal safety and wellbeing
- Strive to improve the quality of life of students and their integration with the local community
- Give access to free advice on academic, finance, housing, immigration and employment issues
- Offer support to students in formal University procedures
- Hold free and fair elections within a democratic structure
- Conduct business in line with ethical practices and strive to improve services in an open and transparent manner on a continual basis
- Use resources responsibly in the interest of students and re-invest student spending back into Guild services

University Regulations

The University Regulations contain principles and standards designed to control or govern conduct or provide direction at a more detailed level than ordinances. They may be amended or augmented through the University's own committee system. These Regulations apply to all members of the University, including students.

The University of Birmingham's Regulations can be found at
www.birmingham.ac.uk/university/governance/Legislation/index.aspx

The following information provides a summary of that which can be found at the website listed above. It should be noted that these Regulations are subject to be modified during the academic year. The University has reserved the right to make changes each year which bind all members of the University, including students.

The University Regulations are split into the following sections:

- Section 1: 'Definitions and Interpretation' gives definitions for the terms used in these Regulations and states how these Regulations should be interpreted
- Section 2: 'Organisation and Governance' sets out the Regulations governing conduct of Senate;

organisation and conduct of College Assemblies and Staff/Student Committees; Student membership of committees; Staff membership of Principal Academic Units outside their own College; and title deeds and documents pertaining to the University

- Section 3: 'Human Resources Matters' sets out the Regulations to be followed relating to academic appointments, promotions and conferment of titles; award of honorary academic titles; exceptional and study leave from a University post; and patents and intellectual property rights
- Section 4: 'Estates Matters' sets out the Regulations concerning access to University property; use of vehicles on campus; proper use of notice boards and notices; and use of loudhailers
- Section 5: 'Admission and Registration' sets out the Regulations governing admission of Students to the University and the terms and obligations which apply to Registered Students
- Section 6: 'Programmes of Study' sets out the requirements, such as credit requirements and minimum/maximum duration, for all categories of Programmes of Study offered by the University
- Section 7: 'Assessment, Progression and Award' sets out the Regulations for assessing Registered Students; requirements for progression from one stage of a Programme of Study to the next; Regulations on the granting and calculation of awards; and the conduct of Degree Congregations
- Section 8: 'Student Conduct' sets out the principles and Regulations to be followed in cases of Student misconduct, including instances of misconduct which do not take place on University property
- Section 9: 'Documents Supplementary to the University Legislation' sets out the status and requirements of the Codes of Practice, Policies and Guidance documents which supplement the University Legislation
- Library Regulations' sets out the Regulations governing the use of Library Facilities including access and admission, use of facilities, behaviour in Libraries, and the terms and conditions under which items can be borrowed and must be returned

Policies and Codes of Practice

The University of Birmingham's Policies and Codes of Practice include the following: admissions; appeals; complaints; distance and placement learning; leave of absence; misconduct (Discipline); student support; suspension from study; and taught programmes and modules.

The University of Birmingham's Policies and Codes of Practice can be found at https://.intranet.birmingham.ac.uk/as/registry/legislation/codesofpractice/listcodeofpractice.aspx

Extenuating circumstances, complaints and appeals

During your period of study any number of circumstances may affect your ability to perform well in assessments (this includes essays, class tests and final examinations). "Extenuating circumstances" (formerly known as "mitigations") is the process of informing your School of circumstances that have affected you throughout the year. Depending upon the nature and severity of these circumstances your School may wish to take them into account when the Board of Examiners meet to decide what your progress decision should be. To ensure that details of your extenuating circumstances are handled with the utmost sensitivity, privacy and confidentiality, discussions about the validity of requests for extenuating circumstances will take place at Extenuating Circumstances Panels, rather than the full Examination Board. The Examination Board will not discuss details of the extenuating circumstances you present.

Further information, including information on how to present extenuating circumstances, can be found at https://intranet.birmingham.ac.uk/as/registry/policy/extcircs/index.aspx

Student conduct, Fitness to Practise, and examination conduct

Information about student conduct and Fitness to Practise is available at www.intranet.birmingham.ac.uk/as/studentservices/conduct/index.aspx. Fitness to Practise regulations ensure that students meet professional standards of conduct for awards that lead to a professionally recognised qualification, for example Medicine, Initial Teacher Training and Dentistry.

Examination Conduct
Unfortunately every year a number of students are subject to investigations because of an alleged examination irregularity. In some cases, the irregularity is viewed to be academic misconduct and results in the student concerned having their examination mark reduced to zero (with no resit), or in severe cases, the student being withdrawn from the University.

What is an Examination Irregularity?
An examination irregularity occurs if a student breaches University Regulations relating to academic conduct. Examination irregularities could include:

- Taking notes into an exam
- Using a phone or other electronic devices in an exam
- Having a phone in your pocket
- Taking blank paper into an exam
- Taking correction tape or fluid (Tippex) into the exam
- Having writing on your body/arms/hands
- Talking to other students
- Annotations in books/dictionaries
- Storing text in calculators or other electronic devices
- Removing papers from the exam room

Why does the University take Examination Irregularities seriously?
The University wants to maintain high standards. Examination irregularities can:

- Give some students an unfair advantage
- Disadvantage other students who act fairly
- Impact on the credibility of the University and your degree

What are my responsibilities with regard to examinations?
Think about the following:

- Be organised on the day of the exam
- Make sure you have no writing on your hand/arm before going to the exam – if you do, wash it off!
- Check the venue of the exam (know where you need to go)
- Arrive at the exam hall early
- Check your dictionaries, pencil cases and pockets to remove any notes, paper, or mobile phones
- Carry your pens, pencils and items in a transparent pencil case or clear plastic bag
- Have your pens, pencils and permitted equipment ready when entering the exam hall
- Place your belongings in the designated areas

During the examination:

- Listen carefully to the Invigilator's Instructions
- If you are worried about something in an exam, raise your hand to speak to the Invigilator.

You can find more information on examination rules on the Exam Conduct Intranet page:
https://.intranet.birmingham.ac.uk/as/learning-spaces/exams/conduct.aspx

Where can I get help?
If you are anxious, stressed, or nervous, help may be available from:

- Wellbeing Team (Student Support)
- International Student Advisory Service
- Guild of Students
- Welfare Tutor

Plagiarism
Plagiarism is a form of cheating and is a serious academic offence. It arises where work submitted by

a student is not their own and has been taken from another source. The original material is then hidden from the marker, either by not referencing it properly, by paraphrasing it or by not mentioning it at all.

- The University of Birmingham provides detailed guidance on plagiarism. This can be found at www.intranet.birmingham.ac.uk/as/studentservices/conduct/index.aspx www.intranet.birmingham.ac.uk/as/libraryservices/library/referencing/index.aspx
- Your Tutor or Programme Director will be happy to advise if you are unclear on any aspect of what constitutes plagiarism.
- The following information on plagiarism should only be viewed as general guidance. For up-to-date guidance please see the hyperlink above.

What is plagiarism?

Plagiarism may occur in a number of other forms, as well as in conventional written work. Another student may be involved, or the plagiarism may arise from the misuse of sources outside the University. The key is proper attribution of source material. None of the activities listed above is, of itself, necessarily wrong. Plagiarism is a serious matter for the University. If not dealt with, it will ultimately devalue all University degrees to the detriment of both students and the University. It also introduces a fundamental and inevitable distortion when the work of a student cohort is being assessed. This, in turn, is likely to lead to the undetected plagiarist obtaining better marks and a better degree than a student who is playing by the rules.

The most common forms of plagiarism are:

- cutting/copying and pasting material from the Web
- copying the work of another student (past or present) including essay material, laboratory data or computer source code
- copying course material or lecture notes
- copying material out of a textbook or journal
- Submitting purchased ready-written, or written-to-order, essays
- Resubmitting your own work that you have already submitted for another assignment ("auto-plagiarism")

The way to use other people's work without being guilty of plagiarism is to learn how to acknowledge your sources correctly. This is why so much emphasis is placed on learning how to reference material you have used.

Your responsibility regarding plagiarism

At this University you are expected to submit work that demonstrates compliance with two important prerequisites:

- a level of independent thought, grounded in the teaching received
- the provision of clear referencing to all sources consulted, both within the main body of the work submitted and in any separate listing of sources

It should be clear from a consideration of these two key requirements why plagiarism is unacceptable. By definition, a piece of work that has been plagiarised will never be able to meet either of the above criteria. Asking yourself prior to submission whether your work passes both tests is a useful method for determining whether there is likely to be a problem with plagiarism.

It is ironic that students sometimes seem to go to great lengths to hide the sources that they have been consulting. Proper referencing of these will normally be reflected in a good mark for the work submitted. This is because the appropriate use of source material is considered to be a crucial part of academic life. The resultant marking process will therefore acknowledge this, hence the inherent irony involved in the position of the student plagiarist who runs the risk of a serious penalty by hiding an aspect of their work that, done properly, is likely to help achieve a good mark without putting their

student career in jeopardy.

Data Protection Act
The University of Birmingham needs to keep certain information about its employees, students and other users to allow it to, for example, monitor performance, achievements, and health and safety. It also needs to process information so that staff can be recruited and paid, courses organised and legal obligations to funding bodies and government complied with. To comply with the law, information must be collected and used fairly, stored safely and not disclosed to any other person unlawfully. To do this, the University must comply with the Data Protection Principles, which are set out in the Data Protection Act 1998.

- The Data Protection Act and any information a student may need about it can be found at www.intranet.birmingham.ac.uk/legal-services/Data-Protection/Data-Protection.aspx

STUDENT REPRESENTATION AND SOCIAL SUPPORT

Visit the Guild of Students – Your students' union

If you're a student at the University of Birmingham, then you're automatically a member of the Guild of Students, your students' union.

We're here to make sure you get the best from Birmingham! As a charity and the students' union for more than 30,000 students, we represent you to the university and other organisations about your academic and university experience. We're your voice on the issues that matter most to you.

At your students' union, you can also:
- Find part time work or volunteering opportunities to help you develop the skills outside of study that will increase your employability
- Meet new people and follow new interests by joining a student group (from Bhangra and Tea Appreciation to Skydiving)
- Have fun at our legendary weekly club night Fab N Fresh, or various other events throughout the year
- Access a wealth of advice and support

All to make sure your time at Birmingham is special!

Find us online at www.guildofstudents.com and follow us on Twitter @GuildofStudents

APPENDIX I - LIST OF UNDERGRADUATE MODULES

Year 1 - Level C

School Code	Banner Code	Module Title
1AC	06 25659	Algebra & Combinatorics I
1Mech	06 25661	Mechanics
1MMPS	06 25662	Mathematical Modelling & Problem Solving
1PS	06 25663	Probability & Statistics
1RAC	06 25660	Real Analysis & the Calculus
1RACm	06 25764	Real Analysis & the Calculus
1VGLA	06 25664	Vectors, Geometry & Linear Algebra

Year 2 - Level I

School Code	Banner Code	Module Title
2MVA	06 25667	Multivariable & Vector Analysis
2RCA	06 25666	Real and Complex Analysis
2LALP	06 25765	Linear Algebra & Linear Programming
2NP	06 25669	Numerical Methods & Programming
2MI	06 25668	Mathematics in Industry
2S	06 25761	Statistics
2AC	06 25665	Algebra & Combinatorics 2
2DE	06 25670	Differential Equations
1Mech2	06 27345	Mechanics
2LA	06 15552	Linear Algebra
1PS2	06 26709	Probability and Statistics
1AC2	06 25665	Algebra & Combinatorics 1
2LP	06 27516	Linear Programming

Year 3 - Level H

School Code	Banner Code	Module Title
3CM	06 22486	Continuum Mechanics
3CMa	06 13799	Continuum Mechanics I
3MePD	06 27714	Methods in Partial Differential Equations
3MoPD	06 27706	Modelling with Partial Differential Equations
2DE3	06 27143	Differential Equations
3PTA	06 27719	Perturbation Theory and Asymptotics
2AC3	06 27142	Algebra & Combinatorics 2
2RCA3	06 27146	Real & Complex Analysis
3Fin	06 20444	Mathematics Finance
3RSM	06 23753	Research Skills in Mathematics
3IPCO	06 21624	Integer Programming & Combinatorial Optimisation
3GTCS	06 17742	Game Theory & Computer Simulation
3NlPHO	06 19590	Non-linear Programming I & Heuristic Optimisation
2NP3	06 27145	Numerical Methods & Programming
2LP3	06 24561	Linear Programming
3Num	06 22498	Number Theory
3GrpT	06 22500	Group Theory & Galois Theory
3GphT	06 22592	Graph Theory
3Com	06 19601	Combinatorics & Communication Theory
3CLog	06 19603	Computability & Logic
3LAn	06 22788	Linear Analysis
3Top	06 27722	Metric Spaces and Topology
2S3	06 27147	Statistics II
3MS	06 22768	Medical Statistics
3AS	06 22515	Applied Statistics
3NM	06 27710	Numerical Methods II
3P	06 02389	Projects in Mathematics
3SMFE	06 23062	Statistical Methods in Economics
3Bio	06 27704	Mathematical Biology I
3ANDS	06 27718	Applied Nonlinear Dynamical Systems

Year 4 - Level M

School Code	Banner Code	Module Title
4P	06 02482	Project in Mathematical Science
4PAM	06 02603	Project in Applied Mathematics
4PBM	06 16709	Project in Mathematics with Business Management
4PMM	06 02442	Project in Management Mathematics
4PPM	06 02383	Project in Pure Mathematics
4PS	06 02520	Project in Statistics
4G0	06 02482	Project
4TAla	06 27693	Advanced Topics in Algebra A
4TAlB	06 27695	Advanced Topics in Algebra B
4TAna	06 27696	Advanced Topics in Analysis A
4TAnB	06 27697	Advanced Topics in Analysis B
3CM4	06 27716	Continuum Mechanics
3MoPD4	06 27707	Modelling with Partial Differential Equations
3Bio4	06 27705	Mathematical Biology I
4Bio	06 27690	Mathematical Biology II
4Wav	06 27692	Nonlinear Waves
4TAM	06 27687	Topics in Applied Mathematics
3Com4	06 19608	Combinatorics & Communication Theory
4TCa	06 27698	Advanced Topics in Combinatorics a
4TCb	06 27699	Mathematical Finance
4FFin	06 21429	Further Mathematical Finance
3NLA4	06 27689	Numerical Linear Algebra with Applications
3NM4	06 27686	Numerical Methods II
TBC	06 26644	Computational Tools for Modelling and Analysis
4CO	06 20442	Combinatorial Optimisation
4Game	06 23692	Game Theory
4NLP1	06 19610	Non-linear Programming I
3HO4	06 19611	Heuristic Optimisation
4IP	06 21625	Integer Programming
4NLPII	06 20441	Non-linear Programming II
4ConO	06 23557	Conic Optimisation
4MDM	06 19613	Multicriteria Decision Making
3PTA4	06 27719	Perturbation Theory and Asymptotics
3MePD4	06 27714	Methods in Partial Differential Equations
4RDT	06 27691	Reaction Diffusion Theory
3ANDS4		Applied Nonlinear Dynamical Systems
4FIPa	06 27700	Frontiers and Impact of Pure Mathematics A
4FIPb	06 27703	Frontiers and Impact of Pure Mathematics B
3AS4	06 22522	Applied Statistics
3SMFE4	06 23061	Statistical Methods in Economics
4PMORSE	06 23800	Project (MORSE)
4PFIN	06 23839	Financial Engineering Project
4Fin5A	06 23063	Introduction to Quantitive Finance
4Fin5B	06 23064	Exotic Options, Bonds and Further Quantitive Finance
4FFin5	06 23065	Advanced Quantitive Finance
5CMP	06 22295	Computational Methods and Programming / C++
4RSM	06 25417	Research Skills
5RSMM	06 23829	Research Skills in Mathematical Modelling

Other Modules

School Code	Banner Code	Module Title
01MDa	06 23614	LF Introductory Mathematics & Data Handling Skills
0MFCb	06 23618	LF Science and Eng. Mathematics: Further Concepts
3F1	06 06205	LH Complex Variable Theory for Physicists
3F2	04 23779	LH Engineering Mathematics A+B
3F2a	04 22981	LH Engineering Mathematics A
4F1	04 18779	LM Complex Variable Theory for Physicists

APPENDIX II - I.T. AND LIBRARY SERVICES

Information Services is responsible for providing library and computing facilities to support learning, teaching and research at the University of Birmingham.

Students have access to a wide range of printed and electronic information resources, as well as computing facilities, via libraries and learning centres. Services include:

Access to a book stock of more than 2.5 million printed volumes, and 13,000 electronic periodicals.

Free access to email and the Internet.

Access to PC clusters in various campus locations including Main Library and the Learning Centre: http://www.clusters.bham.ac.uk
Wireless networks in key locations across campus for laptop, PDA or tablet PC: http://www.wireless.bham.ac.uk

Loan of laptops.

Library Services Direct for help, and access to a range of library services from any location: http://www.library.bham.ac.uk

Computing Helpdesk: http://ehelpdesk.bham.ac.uk
Specialist subject support and training for locating and retrieving appropriate information for essays, projects and dissertations: http://www.library.bham.ac.uk/searching

For an introduction to resources in Mathematics look for the leaflet entitled Information Sources in Mathematics' under ' Subject Guides' from the links to information leaflets above. You will be given an introduction to Library Services as a presentation included in your induction day.

For more information on all of the above services, visit the Library Services website: http://www.library.bham.ac.uk/

APPENDIX III - CONTACT DETAILS OF ACADEMIC STAFF

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APPENDIX IV - USEFUL WEBSITE ADDRESSES

University Student Charter: http://www.birmingham.ac.uk/studentcharter
University Regulations: http://www.as.bham.ac.uk/legislation/regulations.shtml

Policies and Codes of Practice:
http://intranet.birmingham.ac.uk/as/registry/legislation/codesofpractice/listcodeofpractice.aspx
Extenuating circumstances, complaints and appeals:
https://intranet.birmingham.ac.uk/as/registry/policy/complaint-appeal/index.aspx http://www.oiahe.org.uk
Data Protection Act:
https://intranet.birmingham.ac.uk/legal-services/Data-Protection/Data-Protection.aspx
Marking schemes/assessment criteria/method of degree classification:
http://www.as.bham.ac.uk/legislation/docs/regulations_part7.pdf
Health and Safety Guidance:
https://intranet.birmingham.ac.uk/hr/wellbeing/worksafe/management/hsmanagment.aspx
Equality and diversity policy: https://intranet.birmingham.ac.uk/collaboration/equality/index.aspx
Students with disabilities and specific learning difficulties:
https://intranet.birmingham.ac.uk/as/studentservices/index.aspx
School of Mathematics Homepage is www.birmingham.ac.uk/mathematics
Information for current students, i.e. this handbook, timetables, module descriptions, links to Canvas, MyBham, the Library, etc.:
http://www.birmingham.ac.uk/schools/mathematics/current-students/index.aspx

The University of Birmingham Student intranet provides information on Student Life, Student Accommodation, Student Support, Careers, the Guild of Students, etc.:
https://intranet.birmingham.ac.uk/student/index.aspx

LGBTQ information is available at
http://www.birmingham.ac.uk/welcome/diversity/lgbtq.aspx

There are, of course, many other resources on the Internet; those listed on this page are a tiny sample of what is currently available.

Disclaimer
The Internet is constantly evolving. New pages are being added every day, and existing resources may disappear or change their location just as fast. Every effort is made to keep this page up-to-date; however, if you notice any errors or if you have any suggestions for inclusions, please contact the Head of Education.

APPENDIX V - HELP WITH CV WRITING

Take control, get organised. Start your future now!

Keep track of your academic achievements, and fill those gaps in the ‘extracurricular activities’ section of your CV. You’ll be in a stronger position to take the next steps.

The University has developed »Progress», a resource designed to help you throughout your time here. Online, you can:
- Identify what you are good at (in life as well as study) and what you need to work on;
- Access your ‘unofficial’ transcript so you can see what result you are heading for;
- In some Schools, even see your continuous assessment results as they emerge;

Start your CV (because when you’re in your final year you won’t remember what you achieved in your first year); et careers information (every year hundreds of students miss opportunities just because they don’t know about them in time).

There are many opportunities available to help you to get more out of your time at University, whether it is volunteering, getting a summer work experience placement, taking the Personal Skills Award, or just making sure that you are on track with your degree.

»Progress» is ready for you to use before the start of term. Log to http://www.my.bham.ac.uk and click on the myProgress tab. This then gives you the link you need (new students will need to register first). Start by completing the skills audit within the 'My Skills' section. You may wish to discuss your results with your tutor.

You do not have to know exactly what you want to do when you leave, but using the university services early will make everything so much easier when you do.