

Lecture Courses in Mathematics & Physics: Student and Staff Expectations

This document is designed to help clarify the teaching and learning process in MTH, AMA, PMA, SOR and PHY lecture courses in the School of Mathematics & Physics. Lectures remain the primary method for introducing students to new topics in Mathematics and Physics and it is therefore important that the expectations of the staff and students involved are clarified so that students meet the learning outcomes for their module/degree programme.

It is important to realise that there are many different ways in which this goal can be met. Different modules will be delivered with a range of methods/assessments to test different learning outcomes. Even within traditional lecture courses, there will be substantially different styles of lecturing and students may be required to adopt different approaches for assimilating and understanding Mathematics and Physics concepts. Indeed in the “real world”, graduating students end up working in a variety of environments and need to be able to adapt to different training and development methods. So it is important for students to have a range of learning experiences, even if at times they find some styles more challenging than others.

Two of the key learning outcomes of a QUB Mathematics or Physics degree are to be able to:

- *Search for, evaluate and reference relevant information from a range of sources*
- *Work independently while demonstrating time management and the ability to meet deadlines.*

The provision of lecture courses which are well taught by staff and fully engaged in by students is an important way in which these outcomes can be met. Students may enter University having been previously “given” the material required to achieve high grades at school, but through their degree they need to demonstrate that they are developing into independent learners. A diversity of teaching experiences during their degree is therefore essential. However, there should of course be some minimum expectations of the staff and students in the delivery of these lecture courses. These general principles are laid out in the University’s Student Charter -

www.qub.ac.uk/directorates/AcademicStudentAffairs/AcademicAffairs/GeneralRegulations/StudentCharter/, but guidelines which are specifically relevant to Maths and Physics are detailed here.

Lecturer Guidelines

- General
 - Lecturers are expected to be well prepared and to be on time
 - Lectures must not start before 5 minutes past the hour and finish beyond 5 minutes to the hour.
 - The lecturers are expected to deliver lectures in all the timetabled slots. The lecturer cannot cancel more than one of these lectures without consulting the appropriate ADE/DE.
 - Lecturers are welcome, but not expected, to schedule additional classes for students, e.g. revision classes.
 - Lecturers should be clearly heard by all the students, with a microphone being used in a larger theatre if necessary.
 - Where practical, lecturers should get students to sign attendance sheets which can be returned to the School Teaching Office. These are used for attendance monitoring but it is also necessary to monitor the engagement of foreign students on courses involving the Academic Technology Approval Scheme (ATAS) - www.qub.ac.uk/International/International-students/Visa-and-Immigration/.
- Course Information provided to students – should include
 - A detailed, clear and concise synopsis of the course
 - A list of resources relevant to the course such as recommended books available in the library (if appropriate) or online materials
 - The arrangements for the course assessment should be clearly detailed. Dates for assignment submission, class tests and feedback classes should be listed. If dates for assignment submission and class tests have been pre-arranged by the Level Coordinator or Associate Director of Education they must not be changed without consultation.
 - Any changes to content, assessment, rubric, and how this relates to past examinations must be clearly detailed
 - Contact details and (if appropriate) availability
- Provision of lecture notes
 - Lecturers are not expected to provide complete course notes to students. However, any information should be presented in a clear and logical fashion and the method(s) by which the lecturer expects course material to be assimilated should be made clear to students.
 - In the event of student absence due to exceptional circumstances/disability, lecturers should have a set of course notes and references of sufficient detail from which students can work through the course independently.
- Changes to module content and assessment
 - Very minor changes to module content or emphasis can be made at the discretion of the lecturer.
 - Significant changes to the content and/or assessment of the module cannot be made without proper consultation. This needs to be considered by the Mathematics and/or Physics Education Boards and if appropriate a new module description put forward for consideration by the University's Courses and Regulations Committee.
- Setting/marking of assignments
 - Students should normally be given assignments at least a week in advance of the deadline and only involve material covered up to a week in advance of this deadline. The assignment might include "unseen" material which the student may be required to investigate independently.

- Assignments will normally be marked and returned to students within two working weeks of the deadline.
- The previous two points do not apply for weekly assignments which are expected to have a faster turn-around. In these cases any submission after the feedback class/tutorial results in a mark of zero.
- If an assignment contributes 10% to the module mark or more (for a single 20 CATS points module), then student marks and feedback should not be returned within one week of the deadline. This is to allow for late submissions up to 5 working days after the deadline.
- The amount of time which the students are expected to spend completing the assessment should be proportionate to its weighting. As a rough guide the assessment should not take longer than 1 hour for every 1% of contribution to a full (20 CATS) module.
- Marks made available to the students for continuous assessment components that contribute to the final mark are provisional and subject to ratification by the External Examiners at the appropriate Exam Board.
- Lecturers will cover general areas of student mistakes and misunderstanding in the feedback class. Lecturers are also expected to provide written feedback for individual assignments but the extent/scope of this should be determined by the importance of the assignment (in terms of contribution to the overall module mark) and be moderated by practical considerations such as the size of the class.
- Provision of solutions
 - It is at the lecturer's discretion whether full solutions to past exam questions are provided or not. However, if full solutions are provided the exam questions should not be re-cycled from previous exam questions. The number of solutions provided is at the discretion of the individual lecturer and this will vary for different modules. Rote learning of solutions is to be discouraged. Instead understanding and analysis of the solution obtained is seen as far more beneficial to the student.
 - The lecturer should provide the final answer to parts of past exam questions which involve a numerical calculation (for the last 2-5 years, if relevant).
 - It is at the lecturer's discretion whether solutions to assignment questions are made available to students. Full solutions may need to be made available to students unable to attend this class due to exceptional circumstances/disability.
- MEQ/TEQ
 - Lecturers should arrange with the Teaching Office when and where to hand out teaching evaluation questionnaires towards the end of the course. If a member of clerical staff is unavailable to pick up the completed questionnaires, a student volunteer should collect the TEQs and return these to the Office.
 - If the lecturer is taking the final component of a module, module evaluation questionnaires should be handed out along with TEQs.

Student Responsibilities/Expectations

- General

- Lectures are not compulsory but attendance is monitored and habitually absent students are called to student support meetings. Past analysis has shown a strong correlation between poor attendance and poor student performance.
- Students are expected to arrive in lecture theatres on time.
- Mobile phones should be on silent mode and only used if part of the class activities.
- Students are expected to show courtesy to the lecturer and other students by not disrupting lectures
- Students are expected to read their Emails on a daily basis so they can receive information and updates from the lecturer
- Provision of lecture notes
 - Students can expect to receive a detailed synopsis of the course, a list of relevant resources, and details of how the course is being assessed.
 - Students are expected to be able to assimilate their own notes based upon lectures, books and other resources.
 - The course notes provided by different lecturers may vary substantially in scope and format. Students are expected to be able to adapt to different styles and formats. The lectures themselves are intended to add context and detail to these notes which are essential if students are to be successful in the module.
 - Irrespective of the extent and style of notes provided, students can expect the lecturer to present the lectures and materials in a clear and logical fashion.
- Provision of solutions
 - While some lecturers may provide full solutions to past exam questions, students should not expect this for all courses. Courses for which solutions are provided will have original questions in the exam so that memorisation of past solutions will be a worthless exercise.
 - Students can expect to be provided with final answer to parts of past exam questions which involve a numerical calculation (for the last few years, if appropriate). The number of solutions provided is at the discretion of the individual lecturer and this will vary for different modules. Rote learning of numerical solutions for physics and mathematics modules is to be discouraged. Instead an understanding and analysis of the solution obtained is seen as far more beneficial to the student.
 - For assignments students can expect a feedback class in which general misunderstandings and mistakes are identified and explained. In some but not all courses, these solutions to the assignments may also be provided in paper form or posted online.
- Assignments
 - Students are expected to submit assignments which are their own work. Students may discuss methods for approaching questions with staff and fellow students, but must complete the assignment without using other students' work. Students must read and understand the University's policies on academic offences such as plagiarism, copying, collusion and fabrication - www.qub.ac.uk/directorates/AcademicStudentAffairs/AcademicAffairs/AppealsComplaintsandMisconduct/AcademicOffences/Student-Guide/
 - For an individual component, students should set aside sufficient time for completion of the assessment in advance of a deadline by arranging their time appropriately. As a rough guide 1 hour should be spent for every 1% of assessment in a full module. For an class test worth 40% in a half module up to 20 hours of revision may be necessary, while for a weekly assignment worth 1% in a double module then around 2 hours of work would be required.

- The University regulations state - *Assessed work submitted after the deadline will be penalised at the rate of 5% of the total marks available for each working day late up to a maximum of five working days, after which a mark of zero shall be awarded*
- For coursework which is worth less than 10% of a full module, some feedback classes/tutorials will be held within five working days of the deadline to facilitate rapid feedback. In this case any submission after the feedback class will be marked but receive zero.
- Students can expect assignments to be marked and returned with feedback within two working weeks. General feedback will be provided in a scheduled class while individual feedback will be written on the students' scripts. The extent of this individual feedback will be determined by the importance of the assignment (in terms of contribution to the overall module mark) and other factors such as how fast the script is returned and number of students in the class.
- For more substantial assignments which are a significant proportion of the module assessment and hence are essentially mini-projects, then feedback may be longer than two weeks since double marking and moderation by the Board of Examiners may be required.
- Consulting lecturers
 - The School has an open door policy so that students can knock on the door of any academic member of staff to seek help. If students are having difficulty with the course, they are welcome to talk directly to the lecturer after class or in their office. However, students should realise that staff have a range of duties and may not always be available at short notice. Therefore, it is good practice to arrange a meeting in advance.
 - Students are expected to work towards becoming independent learners during their course and therefore should not misuse the open door policy simply as a means of simply being given answers to problems.
 - Students can also seek advice/help via Email and can usually expect to receive a reply as soon as possible (note that lecturers travel often and may not immediately have access to Email). Even though staff will reply to students in the evenings and at the weekend, students should not expect this routinely.
 - In the run-up to an examination students are encouraged to consult with the lecturer during their revision. However, they cannot be guaranteed a meeting/response from the lecturer within two days of the exam. It is up to the student to organise their revision timetable appropriately so that they do not find major gaps in their knowledge /understanding a day or two before an exam.
- Exams
 - In accordance with University policy, students will not be able to view their exam script after marking or have it remarked. Students can request a clerical check to make sure that all their work has been marked and the addition of the marks is correct (for a fee of £10).
 - Students will not be given individual feedback on their exam performance beyond the overall examination mark. Students can expect to receive general feedback on how the class as a whole performed on each exam question and where significant mistakes and misconceptions occurred.
- Student Feedback/Complaints
 - Mathematics and Physics staff highly value student feedback/constructive criticism from a variety of sources, e.g. directly to the lecturer, via student representatives – sscc.physics@qub.ac.uk and sscc.maths@qub.ac.uk, TEQ/MEQ forms, or to the Level Coordinators and Associate Directors of Education for Mathematics and Physics.

- If the student finds shortcomings with the education provided but fails to avail of the above opportunities to seek re-dress, this will weaken any subsequent appeals.
- To initiate a formal complaint see the University Regulations - www.qub.ac.uk/directorates/AcademicStudentAffairs/AcademicAffairs/AppealsComplaintsandMisconduct/StudentComplaints/

This information is intended as a general guide for how students should approach a lecture course. General and up-to-date information for students undertaking a Physics or Maths degree can be found in the Student Handbook.

<http://www.qub.ac.uk/schools/SchoolofMathematicsandPhysics/Study/StudentHandbook-Welcome/StudentHandbook/>