

Physics

Undergraduate Student Handbook

2023-2024

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Staff and Key Contacts

Head of Department: Dr Murilo Baptista, Meston 338, murilo:baptisa@abdn.ac.uk
Director of Undergraduate Pathways: Dr Ross Macpherson, Meston 320, r.f.macpherson@abdn.ac.uk
School Office: Meston G05d, physics@abdn.ac.uk

The department's webpage, which includes a list of staff, can be found at Physics | The School of Natural and Computing Sciences | The University of Aberdeen (abdn.ac.uk)

Physics staff operate an open door policy so please drop in at any time or make an appointment by email if you require any help or additional feedback.

Key Education Policies

Students are asked to make themselves familiar with the information on key University-wide policies, available here. These policies are relevant to all students and will be useful to you throughout your studies. They contain important information and address issues such as what to do if you are absent, how to raise an appeal or a complaint and how the University will calculate your degree outcome.

Assessment
Feedback
Academic Integrity
Absence
Student Monitoring/Class Certificates
Late Submission of Work
Student Discipline
The co-curriculum
Student Learning Service (SLS)
Professional and Academic Development
Graduate Attributes
Email use
MyAberdeen
Appeals and Complaints

These University wide education policies should be read in conjunction with this handbook, in which School specific policies are detailed. These policies are effective immediately, for the 2023/24 academic year. Further information can be found on the <u>University's Infohub webpage</u> or by visiting the Infohub.

Decolonising the Curriculum

- At the University of Aberdeen, we are dedicated to decolonising the curriculum. Our courses reflect a commitment to diverse perspectives and a comprehensive understanding of global knowledge.
- 2. In line with our commitment to inclusivity and equity, the University of Aberdeen is actively engaged in the process of decolonising our curriculum. Our courses and programmes aim to emphasise a plurality of voices and perspectives.
- 3. At the University of Aberdeen, our courses and programmes are designed to challenge traditional narratives and incorporate a wide range of cultural and global viewpoints.
- Decolonising the curriculum is central to our mission at the University of Aberdeen. Our courses are continually evolving to better represent a broader range of voices and experiences.

- 5. As part of our ongoing efforts to promote diversity and inclusivity, the University of Aberdeen is committed to decolonising our curriculum. Our courses aim to embrace the rich tapestry of human knowledge from diverse cultural contexts.
- 6. At the University of Aberdeen, we recognise the importance of decolonising the curriculum to create a more equitable educational environment. Our courses are designed to challenge biases and embrace global perspectives.
- 7. Diversity and inclusivity are fundamental to our educational ethos at the University of Aberdeen. We are actively engaged in the process of decolonising our curriculum to provide a well-rounded and equitable education for all.

Educational Aims

The educational aims of the Department are to:

- help you understand the basic principles and concepts of Physics and how these relate to the physical universe;
- enhance your communication and problem solving skills in the context of a career with physics content;
- show how Physics can be applied to other subjects.

Transferable Skills

Having a good portfolio of transferable skills is the key to employment these days. It is true that people with a knowledge of University level physics rate highly in a great many professions but in our courses we don't just teach physics. We also aim to build into our courses experience and training in a wide range of skills, including

- word-processing, spread-sheet use and computer-aided drawing
- computer based data analysis
- web-based information search and retrieval
- library based information retrieval
- oral and poster presentations
- group and team work
- synopsis writing and report writing
- familiarity with technical computer packages and simulations
- some computer language skills
- mathematical competence
- problem solving and creative skills

These skills are developed to varying extents in all four years of our courses. Our aim is to educate you to be a scientist, not simply to provide an education in science.

Catalogue of Courses

The Catalogue of Courses can be found at https://www.abdn.ac.uk/registry/courses/ and contains the following information, and more, for each course:

- · Course Overview and Description
- · Course Co-ordinator
- Course Requisites
- Assessment and Feedback
- · Intended Learning Outcomes

Teaching Timetable

Once you have registered, your timetable can be found at https://www.abdn.ac.uk/mytimetable/courses/index

If you aren't yet registered or would like to find out if courses clash you should check https://www.abdn.ac.uk/mist/apps/courseoverlay/

Attendance and Monitoring Progress

You must attend classes regularly and do the work of the course. The University operates a monitoring system throughout the academic year to identify students who may be experiencing difficulties with their studies and to ensure that students remain on track for their degree and satisfy the minimum attendance requirements.

If you miss **two** classes without good reason or fail to complete a continuous assessment you may be entered as C6 At Risk. Please read https://www.abdn.ac.uk/students/academic-life/student-monitoring.php for full information.

Absence from Class

You should submit an Absence Report (via your StudentHub) every time you miss a class for good reason. You will need to provide supporting evidence if you are absent for more than 7 consecutive days.

Absence from Exams/Impaired Performance

If you believe that illness and/or other personal circumstances may have affected your performance in an examination, or you have been unable to attend an examination, you must submit details through MyAberdeen Absence Reporting on the day of the exam and certainly no later than three days following the date on which you were expected to appear for the exam concerned. This is as per the University's Policy and Procedure of Student Absence. The policy, linked below, contains information on when supporting evidence (e.g. medical certificates) is required.

Absence policy and further information on Impaired Performance https://www.abdn.ac.uk/students/academic-life/assessment-exams-3377.php#panel1957

MyAberdeen

MyAberdeen is the University's Virtual Learning Environment where you can access learning materials and resources associated with your courses. Access at http://www.abdn.ac.uk/myaberdeen

A number of resources have been developed to help you make effective use of MyAberdeen. See MyAberdeen: Students

Each course will have its own MyAberdeen page containing information you need for the course. It's important you check MyAberdeen regularly.

Deadlines

Your Course Co-ordinator will notify you of submission dates at the beginning of the course. It is important that the deadlines are met for all continuous assessments.

Assessment Submission and Feedback

Many assessments will be online but for those on paper the submission boxes can be found next to the stairs in the Meston Building foyer (entrance opposite Fraser Noble Building).

You must keep a personal copy of submitted work. This copy may be called for in certain circumstances.

Continuous assessment which has been handed in on time will be returned with feedback within 2 (teaching) weeks of submission. This return is just for inspection of comments made. The assessed work should, however, be returned to the Course Co-ordinator so that the External Examiner may examine it.

You should note that CGS marks for summative assessments are provisional, pending confirmation by the External Examiner.

Overall CGS marks for courses will be available in your StudentHub.

Feedback on written examinations can be obtained by making an appointment to see the relevant Course Co-ordinator once the results have been released in StudentHub.

Extensions

If you require an extension for coursework you should submit an Absence Report with supporting evidence (eg letter from Dr) and email the Course Co-ordinator.

Late Submission of Work

Late submission refers to submission of work after the published deadline without an agreed extension, and in the absence of exceptional circumstances.

Any assessed coursework that is submitted beyond the deadline, without an agreed extension, will be recorded as late and a penalty will be applied as follows:

- Up to 24 hours late, the grade will be deducted by 2 Common Grading Scale (CGS) points;
- For each subsequent day, up to a maximum of seven days total, the grade will be deducted by a **further CGS point for each day**, or part of a day, up to a maximum of seven days late;
- Over seven days late, a grade of G3 will be awarded.

Further details can be found at Policy on Late Submission of Work

Marking

The University Common Grading Scale, CGS, provides a common marking scale which is used across the University. You can find full information at Common Grading Scale (CGS) | Students

Some courses are marked in percentage or "marks out of". Please see appendix 1 for the Percentage to CGS conversion table used in the School.

Exams

You are strongly recommended to familiarise yourself with the format, presentation of questions, time allocation, and standard of work required by consulting past examination papers available online at: https://www.abdn.ac.uk/library/support/exam-papers-180.php

First half session course exams are held in December and second half session course exams are held in May. There is another opportunity in the summer for those who fail, fail to attend or are unable to attend.

Deadlines and dates can be found at https://www.abdn.ac.uk/infohub/study/exams.php

Academic Integrity (Plagiarism/Collusion/Cheating)

The University expects that **all students** will undertake their studies with integrity and will submit assessments that have been prepared by themselves. To do otherwise, to act dishonestly and cheat in an assessment, is classed as academic misconduct and will incur penalties.

Ensure you understand the meaning of academic misconduct, how you can avoid it and what the penalties are should you act dishonestly.

Please read the following carefully:

Academic Integrity | Students | The University of Aberdeen (abdn.ac.uk)

Academic Integrity & Referencing | Digital Skills | Toolkit | The University of Aberdeen (abdn.ac.uk)

Code of Practice in Student Discipline (Academic).pdf (abdn.ac.uk)

Resubmission of Work

There are no available resources for students to re-take laboratory classes that they have missed due to any cause. If you take a resit written exam for any reason then the default policy of the Department is to carry forward continuous assessment marks from your first attempt. In some circumstances, however, you will be allowed to submit missing assessment exercises or re-submit poor performances but you must contact the Course Co-ordinator well in advance of the resit and, if necessary, the Head of Physics.

Study Guides

Here are three study guides that you can find in the library:

Studying Physics, David Sands (Palgrave Macmillan, 2003)
Sciences Good Study Guide, A Northledge et al (Open University, 1997).

How to Study: a Student's Guide to Effective Learning, Anne Howe (Kogan Page, 1986).

Degree Classification

Information on how your degree will be classified can be found at <u>Undergraduate Degree</u> Classification

Weighting

BSc: 50% Level 3, 50% Level 4.

Student Support

If you have a problem related to the course please speak to the lecturer or Course Co-ordinator in the first instance. If you feel unable to discuss the problem with them, and it affects the whole class, you can raise the issue with the Class Rep. Otherwise, you can arrange to meet with the Head of Department.

If you have personal problems please talk to your Personal Tutor or the member of staff you feel most comfortable with. If you would prefer to talk to a non-academic member of staff you can contact the Advice and Support Office.

Student Advice and Support Office

Based in the Students' Union Building, the Student Advice and Support team offers impartial and confidential advice and support on a range of issues, including finance, disability information and more. Further information at Student Advice & Support Office | Students

Class Representatives

Class Reps are elected on an annual basis. Any students registered within a course/year or programme who wishes to represent a given group of students can stand for election as a Class Representative. You will be informed when the elections for Class Representative will take place.

You can ask your Class Rep at any time to bring up matters of concern with any member of staff.

What will it involve?

It will involve speaking to your fellow students about the course/year you represent. This can include any comments that they may have. You will attend a Staff-Student Liaison Committee and you should represent the views and concerns of the students within this meeting. As a representative you will also be able to contribute to the agenda. You then feed back to the students after this meeting with any actions that are being taken.

Class Reps are encouraged to meet with Course Co-ordinators early in each half-session to introduce themselves and to ensure an effective channel of communication is established between the class and the teaching staff.

Training

Training for Class Representatives will be run by the Students Association. Training will take place in the fourth or fifth week of teaching each semester.

For more information about the Class Representative system visit http://www.ausa.org.uk.

Staff-Student Liaison Committees

These meet twice a year to discuss matters of joint concern. If there are any matters that you would like discussed, take the initiative and see your Class Rep. Minutes of the meetings are available in MyAberdeen.

Course Feedback

Towards the end of each course, you will be invited to complete a Course Feedback Form. Once completed, they are considered by the relevant course co-ordinator, Director of Undergraduate Pathways/Programme Director as well as the School Director of Teaching and Learning/Director of Postgraduate Education. Ultimately, the University will consider the points raised in all Course Feedback Forms to ensure teaching is of a high quality. The University greatly values your comments and they do help when we are working on ways to improve what we are able to offer.

Prizes

The Department offers various prizes and information can be found here

External Examiner

To be confirmed

You should note that this is for information only and under no circumstances are students allowed to contact external examiners directly.

Careers

A physics degree is a qualification you are likely to be proud of all your life. It will give you entrance to an enormous range of careers. Your predecessors have given Aberdeen's physics degrees a very good reputation. The majority of our graduates in recent years have enjoyed the subject sufficiently to take a further degree (usually an M.Sc. or Ph.D.), even though that was not their specific aim when they came to University. You can get good and varied advice on academic research from any member of the Department of Physics academic staff.

For a much wider look at possibilities, the University has a careers and appointments service, which is based at 48 College Bounds. Services offered include access to a careers adviser who looks after careers related to your subject. For physics, Peter Fantom (p.s.fantom@abdn.ac.uk), is available for immediate queries as well as access to information rooms, current vacancies, employers' information, deadlines, CV preparation advice, careers skills workshops, etc. More can be found on the web at http://www.abdn.ac.uk/careers/. Job opportunities for physicists can be found on the Institute of Physics web page (http://www.iop.org/) and on-line job matching services also exist, such as Prospects Direct (http://www.prospects.ac.uk/). Not exactly career information, but part-time job opportunities can be found at AUSA joblink www.ausa.org.uk.

The Institute of Physics

The Institute of Physics (the IoP) is the body that oversees the professional aspect of Physics in the UK, and to some extent worldwide. In order to become a full member, the criteria laid down by the Institute need to be fulfilled. More information regarding the Institute can be accessed on the Internet through http://www.iop.org. The Institute supports undergraduates through its university student wing – Nexus. Associate membership is £15 for anyone on a recognised or accredited undergraduate

physics degree course (e.g. the Physics based degrees at Aberdeen). This helps you keep in touch with the outside world of physics. It is also a good way to get involved as a STEM ambassador in outreach activities organised by the IoP.

Appendix 1 - Percentage to Common Grade Scale Conversion

% From	% To	CGS	
89.5	100	22	A1
84.5	89.4	21	A2
79.5	84.4	20	А3
74.5	79.4	19	A4
69.5	74.4	18	A5
65.5	69.4	17	B1
62.5	65.4	16	B2
59.5	62.4	15	В3
55.5	59.4	14	C1
52.5	55.4	13	C2
49.5	52.4	12	C3
45.5	49.4	11	D1
42.5	45.4	10	D2
39.5	42.4	9	D3
36.5	39.4	8	E1
34.5	36.4	7	E2
29.5	34.4	6	E3
24.5	29.4	5	F1
19.5	24.4	4	F2
14.5	19.4	3	F3
9.5	14.4	2	G1
4.5	9.4	1	G2
0	4.4	0	G3

Appendix 2 - Department of Physics Oral Presentation Assessment					
Course: PX	Title:		Candidate:		
Marks are awarded on the University's common grading scale (CGS) under the three categories named below. Some points to watch in the presentation are noted underneath but these points are not prescriptive of what <i>must</i> be in a good presentation. The final mark is derived from the category marks with the weightings 2:3:1.					
Presentation	Content		Response to questions		
Final CGS					
Signature:		Date:			

Examiner's additional comments:

Points to watch

Audio: clear articulation, well-paced delivery, talk directed to audience; distinct at rear of audience; use of pauses and modulation; stops at correct time.

Visual: legible writing; text visible at rear; slide or overheads uncluttered; adequate time allowed for reading each slide or overhead; good visual interest; content supplements talk.

Introduction, context and conclusion: the following made clear: title and author(s); topic to be addressed; level of treatment in relation to assumed knowledge in audience; plan of talk. Conclusion is well drawn.

Treatment of subject: physics involved is highlighted; good grasp of fundamentals; appropriate choice of sub-sections; logical structure and arguments; good address of implicit or explicit questions; good balance of time on sub-sections.

Technical: appropriate use of technical vocabulary; technically accurate; good use of numbers to support arguments or statements; appropriate introduction of quantitative relationships; appropriate explanation of concepts and symbols used.

Question response: Good attempt made to address questions; additional clarity or facts provided in answers; logical reasoning exhibited; any questions outside the scope of the topic appropriately fielded.

The standard CGS grades are first-class (I): A1 to A5; II-1,B1 to B3; II-2, C1 to C3; D1 to D3; Fail, F1 to G3. CGS A1 does not mean that the performance cannot be bettered but simply that it was outstanding in the context of the assignment.