Access for all

A Guide to Disability Good Practice for University Physics Departments

IOP Institute of Physics
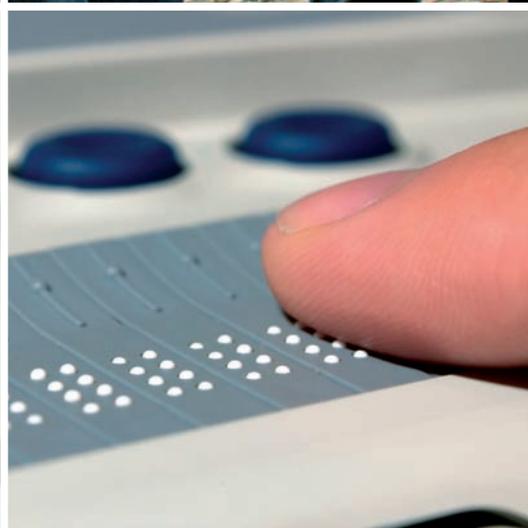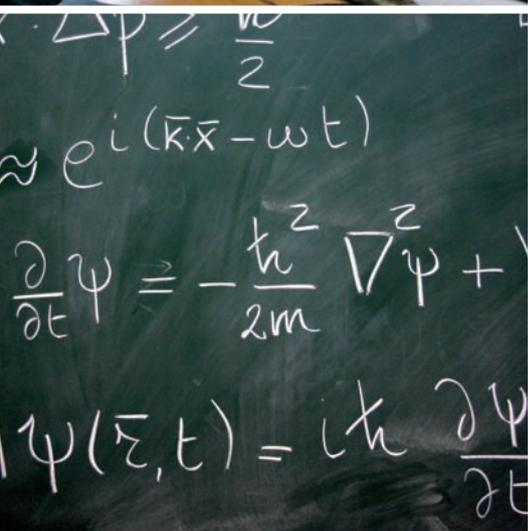
Foreword

As educators and physicists, we should always be looking for ways to enable students to engage with the concepts and skills of physics, so that they can learn more effectively, achieve their potential and go on to be part of the physics community. Disabled people can be particularly disadvantaged in the job market, so it is important for disabled students to be given opportunities and support early on, so that they can obtain a degree-level qualification and compete in an increasingly competitive environment. The aim of this guide is to provide practical advice and guidance to university physics departments, by explaining current disability legislation, highlighting good practice and providing case studies.

Why do we need such a guide? All university physics departments have an obligation to meet the legal requirements of the Disability Equality Duty (DED). This guide is about not just taking action to enable physics departments to satisfy the letter of the law but also looking at the culture within the department, embracing the spirit of the Disability Discrimination Act (DDA) and seeing the individual student behind the disability. This will allow the department to work with the student to open up opportunities, solve problems and remove barriers to enable that student to manage the degree successfully.

There are many perceived barriers for those with a disability studying physics, including:

- a lack of the ability to perform detailed practical work and measurement;

- a lack of the techniques to read and record complex mathematical notation and diagrams in accessible formats;

- the need to develop strong communication skills;

- the physical layout of laboratories and lecture theatres;

- the methods of assessment.

However, none of these is significant enough an obstacle to prevent access to a physics degree programme if the department staff are willing to engage with the student, work with them to overcome barriers and, above all, be flexible, without lowering academic standards and expectations. As head of physics at New College Worcester, the leading national school for blind and partially sighted students, I have had the privilege of passing on my knowledge and joy of physics to students studying A-level physics, many of whom have gone on to study physics, science or mathematics at university. Here you will read about a student who recently graduated in physics, despite having little sight. My hope is that this guide will contribute to enabling many other students, whatever their disability, to achieve their goal of successfully studying physics at university.

Dr Chris Stonehouse,
Vice-Principal, New College Worcester

Acknowledgements

Contents

1.0 **Introduction**

Disability legislation affects all universities and higher-education institutions. The Disability Equality Duty (DED) means that all universities are legally required to look actively at ways of ensuring that disabled people are not discriminated against as a consequence of their disability, and are treated equally. Disability Equality Schemes (DES) should already have been published by every university and be available to all staff and students.

"Equality of opportunity does not mean treating everyone the same. It has to do with ensuring that people are **treated as individuals** and that their **individual needs and requirements are addressed.**"

1.1 The Disability Equality Duty†

This law requires universities to be proactive in ensuring that disabled people are treated fairly. This duty is not exclusively concerned with changes to buildings or adjustments for individuals: it is about including disabled people and disability equality into everything from the outset, rather than focusing solely on individualised responses to specific disabled people.

The basic requirement for any university department is to have due regard for the following:

- promoting equality of opportunity among disabled people and other people, regardless of disability;

- eliminating discrimination that is unlawful under the Disability Discrimination Act (DDA);

- promoting positive attitudes towards disabled people;

- encouraging participation by disabled people in public life;

- taking steps to meet disabled people's needs, even if this requires more favourable treatment, such as allowing extra time in assessed work.

The process must actively involve disabled people, as well as include an action plan and measures of performance. This is not a static process, and it is expected that universities will regularly revisit and update their schemes.

The aim of this guide is to complement this legal duty by providing support and practical advice to university physics departments in meeting their responsibilities towards disabled students. The primary focus is on support for students and addressing specific barriers that might be encountered while studying for a degree in physics, but much of the advice outlined is also relevant to disabled members of staff and to other non-disadvantaged groups.

† As of September 2008, the Government is considering the opportunities for creating a clearer and more streamlined discrimination legislative framework. This may lead to a single equalities bill where the separate equality duties are brought together.

To ensure that disabled students have access to the same equality of opportunity as others, the guidance will look at the entire life cycle of a student's interaction with a university and examine the various methods of support available.

The illustrative and actual case studies throughout the guide can be used as discussion topics and should be viewed as a means of exploring the key issues.

1.2 Key principles

The support for disabled students should start well before the student is enrolled in the department. It is important to consider the entire life cycle of a student's interaction with a university and to consider the whole process: from open days, admissions, teaching and learning processes to examinations, graduation and beyond.

To recognise what is being done well and to identify priority issues for action, it is important to review policies and practices regularly.

Remember that the definition of a student is far-reaching and covers:

- full-time and part-time students;
- postgraduate and undergraduate students;
- home, EU and international students;
- students on short and taster courses;
- students taking evening and day classes;
- distance and e-learning students;
- students undertaking only part of a course or visiting from another institution.
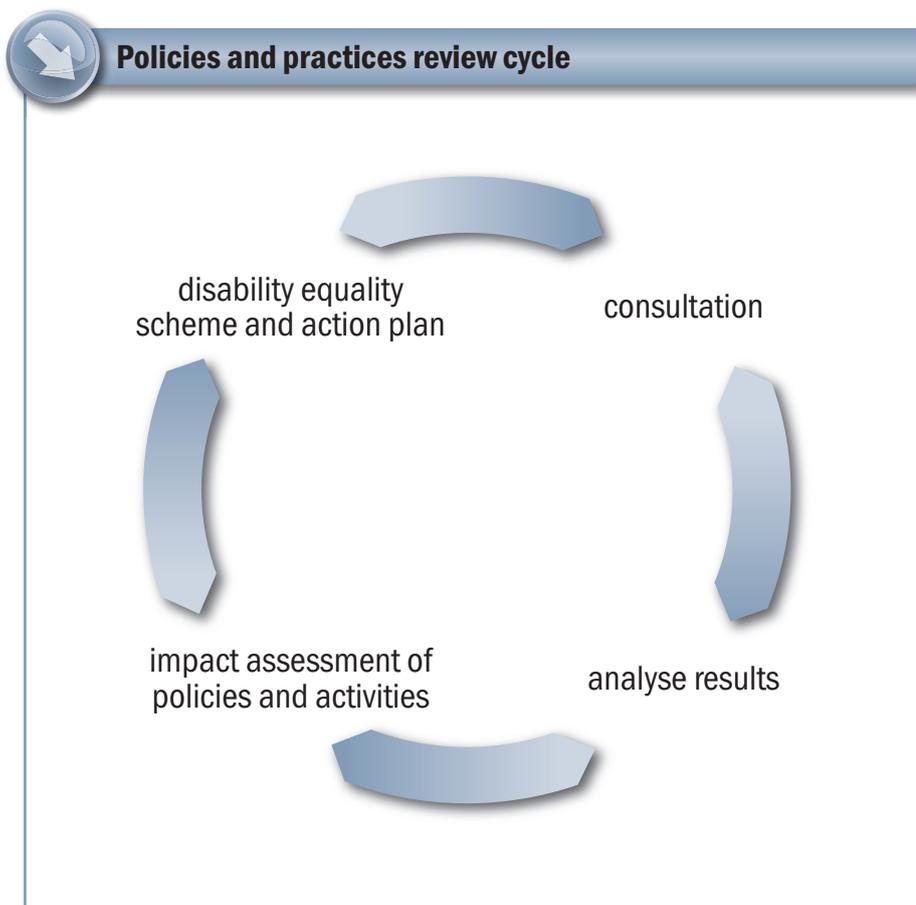
Good practice benefits all. Bad practice adversely affects disadvantaged groups.

Policies and practices review cycle

disability equality scheme and action plan

consultation

impact assessment of policies and activities

analyse results

The table on page 9 lists areas that need to be examined and suggests possible actions.

Area of focus	Action
Culture	• Encourage disclosure through a culture of inclusion. • Ensure disabled students can disclose impairments in confidence and without fear of discrimination. • Maintain confidentiality and respect students' wishes. • Look at department and university-wide attitudes towards disabled students. • Involve and consult disabled students in any changes that might affect them.
Barriers	• Try to anticipate the barriers created by the environment and methods, traditions and policies that govern approaches to teaching. • As far as possible, anticipate reasonable adjustments.
Existing practices	• Review and monitor changes to practices to ensure that they work for the student. • Do not make assumptions about students' abilities and what adjustments might need to be made. • Remember that what works for one disabled student will not necessarily work for another student with a similar impairment. • Educate colleagues and students about disability, including non-visible forms of disability, such as mental-health issues. • Provide training for members of staff who support students. • Use assistive technology to help to support disabled students, but remember that it is also important to look at the culture and attitudes of the department.
Policies and activities	• Identify all formal and informal policies, practices, procedures and criteria as well as who is responsible for them. • Determine if policy, practice, procedure or criterion has any positive impact. • Determine if policy, practice, procedure or criterion has had, or is likely to have, an adverse impact on disability equality on the basis of the information gathered. • Determine the nature of any adverse impact and why it has occurred or is likely to occur. • Find measures to eliminate or reduce adverse impact. • Amend policy, practice, procedure or criterion where appropriate. • Assess changes for adverse impact. • Identify whether there is scope for promoting disability equality within the policy, practice, procedure or criterion. • Review and monitor those changes to ensure that they work for that student.

Case study

Case study 1

I was a full-time student and graduated in 1999 with a BSc in physics. I have a genetic medical condition known as hereditary motor and sensory neuropathy. This causes the fine motivation of my hands to be dysfunctional and my arms to be weak. I am unable to walk without the use of callipers. I use an electrically powered wheelchair to move long distances, a desktop computer to write assignments and a personal assistant to help me with the things that I can't do. I chose to go to my university mainly because it offers good practical training in employable skills. It also offers a management course along with the main degree. These skills are essential to have a chance in this competitive world.

My personal assistant was employed by social services but was paid to be with me only during lectures. Through the DSA I bought a desktop computer. In exams the university allowed me to have 25% extra time, which gave me an equal opportunity to write my answers.

The disability office at the university was very helpful, giving pre-admission advice, supporting my application for the DSA and ensuring that things went smoothly for me in the physics department. The staff in the department were positive and supportive towards me and my needs, and the students were all great. They were ready to help at any time and always invited me to take part in the things that they did. This help was mutual, though, because when any of my friends were stuck on some physics question they didn't hesitate to ask me for help and we all worked together. I just felt like part of the gang.

My recommendation to prospective students is: go after your ambitions, be realistic but don't let your disability stop you when it shouldn't.

2.0 **The social model of disability**

Educate people to look at disabled **people's abilities** rather than looking for problems.

The DDA looks at disability in terms of the "medical model" – disabled people are defined by their impairments and their lack of ability to carry out day-to-day tasks. The social model of disability proposes that barriers, prejudice and exclusion are the factors that define a disability. Employers and education providers are now required to include disability requirements from the outset and to promote disability equality.

2.1 Barriers

The main barriers that disabled students face are environmental, institutional and attitudinal:

- **Environmental** Improving the physical access or teaching environment (removal of obstacles, such as steps, and facilitating the use of auxiliary aids and equipment) for disabled students will mean a better working environment for all. For example, if a laboratory is disorganised and chaotic, this will have an adverse impact on all students.

- **Institutional** The way that a department works can create barriers. Policies concerning admissions, timetabling and teaching methods can be greatly improved to be more accessible to disabled students. Careful planning, an overhaul of out-of-date practices and policies, and greater flexibility in teaching methods can benefit all students in the department, especially those with impairments.

- **Attitudinal** Departments should actively seek to involve disabled students in decisions that affect departmental procedures. Appropriate training and support should be given to all staff to ensure that they are confident and motivated when dealing with all of the students in the department.

When identifying potential barriers, it is important not to focus on a single impairment group but to consider all of those who would benefit from improved teaching methods. By focusing on barriers and not on impairments, it can be seen that disabled students with dramatically differing impairments often share the same barriers.

Disabled students with a hearing impairment, visual impairment or dyslexia all share a lack of communication as a potential barrier.

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Where potential barriers may occur:

- admissions and open days;

- enrolment and induction;

- teaching, including classes, lectures and seminars;

- practical laboratory sessions;

- curriculum design, such as content and structure;

- communication;

- examinations and assessments;

- field trips and outdoor education, such as astronomical-observing sessions;

- study abroad and work placements;

- informal/optional study-skills sessions;

- courses held outside the department or university;

- independent learning opportunities, such as e-learning;

- learning facilities, such as classrooms, lecture theatres, laboratories, studios and darkrooms;

- learning equipment and materials, such as laboratory apparatus, computer facilities and class handouts;

- libraries, learning centres, information centres and their resources;

- information and communication technology and resources;

- graduation and certificate ceremonies;

- the physical environment.

Not being aware of someone's disability cannot be used as a defence if an adjustment could have been anticipated.

When considering what reasonable adjustments can be put in place, the following should be taken into account:

- how effective the adjustment is in preventing the disadvantage;

- how practical it is;

- the cost of making the adjustment;

- the potential disruption caused;

- the time, effort and resources involved;

- the amount of resources already spent on making other adjustments;

- the availability of financial or other help.

A pro forma can be found in the appendix on page 41, which can be used to do an informal "disability audit" of existing practices or procedures.

2.2 Reasonable adjustments

The law states that the duty to make "reasonable adjustments" is an "anticipatory" one. This means that universities and departments must anticipate the general requirements of disabled people with a range of impairments and health conditions, rather than waiting until a disabled person requests a particular adjustment. There is no defence for not making a "reasonable adjustment". If an adjustment is "reasonable" then it must be made. A number of factors can contribute to the reasonableness of an adjustment, but ultimately whether an adjustment is reasonable or not can only be decided by a court of law.

As all universities have a duty to take positive steps to ensure that disabled students can access educational and related services, a reasonable adjustment refers to any change that removes barriers that place a disabled student at a substantial disadvantage when compared with a non-disabled student. Therefore the change can range from the very minor to the quite substantial.

It is unlikely that every possible need can be anticipated, but all universities have a duty to take positive steps to ensure that disabled students are not disadvantaged.

Examples of reasonable adjustments include:

Type of adjustment	Examples
Making adjustments to premises.	Structural or physical changes, such as widening a doorway or moving furniture for a wheelchair user.
Acquiring or modifying equipment, electronic or other materials, or providing specialist aids and adaptations.	Providing a specially adapted keyboard for a visually impaired person or someone with arthritis. (However, there is no requirement to provide or modify equipment for personal purposes unconnected with work, such as providing a wheelchair if someone needs one in any eventuality, but does not have one).
Providing additional support and/or non-medical assistance.	Providing a note-taker or laboratory helper.
Allowing the disabled person to be absent during term time for rehabilitation, assessment or treatment, such as physiotherapy or group therapy.	Providing detailed notes of missed sessions.
Altering/adapting examinations for a disabled student.	Allowing extra time in exams or enabling additional breaks to overcome fatigue.
Providing additional services.	Providing a reader or sign-language interpreter, or converting materials into Braille.
Training staff to work with disabled people.	Ensuring that appropriate adjustments are delivered and that all staff consider the needs of disabled students as a matter of course.
Arranging training for disabled students.	Providing specific training in the use of particular equipment for disabled students or altering the way that the training is delivered.

Lawful Practice

Teaching staff in every department produce all of their handouts in electronic form so that they can be easily converted into large print or put into alternative formats. This is an example of anticipating a reasonable adjustment.

Disabled people are a diverse group with different requirements, and education providers need to consider strategically what type of adjustments can be made.

It would be impossible for departments to anticipate every reasonable adjustment that a disabled student is likely to require. However, once made aware of a required reasonable adjustment, the department is duty bound to make the appropriate changes.

Costs for reasonable adjustments can be the responsibility of the university or the individual department or may be covered by the student's Disabled Students' Allowance (DSA), depending on what the adjustment is. If the cost is for something that the university would normally pay for centrally (e.g. producing a prospectus or running an open day) then the university should meet the costs of the reasonable adjustment. If it is something that the department normally organises (e.g. a department-specific prospectus or teaching arrangements) then the department would have to meet the costs. With physical facilities the estate is usually owned or leased by the university, so utilities, such as lifts, should be funded centrally. It might also be possible to negotiate that some facilities are funded centrally (e.g. a portable loop system that would be of benefit to other departments across the university).

Some special equipment will be the property of an individual student and funded through their DSA (e.g. a laptop with access software or a radio aid). If the student needs to use access software as part of their course 'on site', then it could be the responsibility of the department to provide this because any student who requires it can then have access to the software. If the equipment is very specific to the course and is unlikely to be used by other departments, it is more likely to be the department's responsibility. Ultimately it is the university and not the department that could be taken to court if adjustments are not put in place, but departments should be aware that they have a responsibility to support their students, and it can be beneficial to negotiate with the university centrally about how best to meet an individual's needs.

Example

A wheelchair user applies for a degree course at a large university. Many of the main entrances to the department where the student's lectures will be held, and a number of the student facilities, are inaccessible. This means that she has to access these buildings through "service entrances" at the rear of buildings.

❌ Unlawful Approach

Although the university thinks that it has made a reasonable adjustment by allowing access via the service entrances, the duty has not in fact been discharged. This is because the student still experiences substantial disadvantage using the service entrances because it takes her longer to enter buildings via these routes; these entrances are difficult to navigate and the student is separated from her peers.

✔ Lawful Approach

It may be reasonable for the university to take steps to make the main entrance to these buildings accessible or to rearrange the lecture timetable so that they are held in a more accessible building.

Example

A deaf student who uses hearing aids applies to study physics at a university that has not admitted a deaf student before.

❌ Unlawful Approach

The physics department does not have any hearing loops and thinks that it is unfeasible to install them at short notice. It claims that it does not have a budget for buying portable induction loops. The university is being unlawful because it has not met its duty to anticipate that a disabled student might require the installation of hearing loops. The physics department is also being unlawful because arranging resources – in this case, using portable induction loops – is likely to be considered a reasonable adjustment.

✔ Lawful Approach

The physics department has anticipated that a candidate may apply with these support needs. In anticipation, the department has installed hearing loops in two laboratories and one lecture theatre. Not all lecture theatres have hearing loops, so the department also ensures that the university is aware of the need for all of the student's lectures to be assigned to this lecture theatre, and for all of the student's teaching to take place in the equipped rooms. The department has met its anticipatory duty and is also making reasonable adjustments.

3.0 **Disclosure**

Departments should consider **varying the language that they use** to describe or enquire about any disabilities. For example, it might be more appropriate to enquire about **"access requirements"** when discussing with the student what kind of support they require.

Systems should be in place to enable and encourage disabled students to disclose their disability and any necessary support that is required to ameliorate substantial disadvantages that are likely to arise. The earlier that a disability and its effects are disclosed, the easier it is to make effective adjustments.

To welcome disabled students and make appropriate reasonable adjustments, students need to be asked to disclose any disabilities. If this is done sensitively and correctly, it can create a favourable impression of the department and its attitude to disabled students. A supportive environment can also have the positive effect of encouraging students already in the department to disclose.
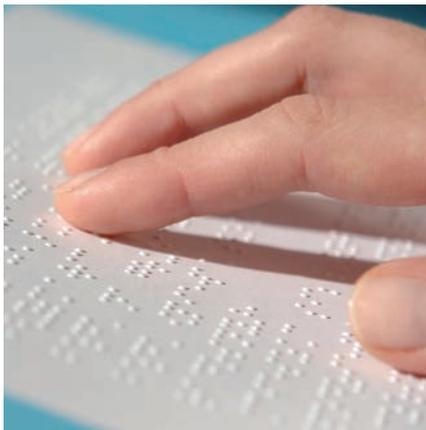
Departments should:

- publicise the provision that is made for disabled people;

- provide opportunities for all students to disclose to tutors, teachers or other staff in confidence;

- ask students once they are on the course whether they need any specific arrangements because of a disability;

- explain to students what the benefits of disclosure are and how this information will be kept;

- ensure that any information that is held about a student is compliant under the university's confidentiality policies and the Data Protection Act;

- ensure that the atmosphere and culture in the department is open and welcoming so that disabled people feel comfortable about disclosing a disability;

- provide students with a contact in the department or university with whom they can discuss their requirements;

- ensure that the department uses this information to decide what adjustments should be made, notifies the student or applicant of its decision, and discusses with them how such adjustments will be implemented.

Questions must be framed carefully to try to avoid any suggestion that an individual's disability is a relevant factor in, for example, deciding on the success of an application for a particular course. This would be a breach of the DDA. The emphasis should be on ensuring that appropriate, reasonable adjustments are made for the individual concerned.

3.1 Confidentiality

All students have a right to request that the existence or nature of their disability is treated with confidentiality. In some instances this might mean that reasonable adjustments must be provided or delivered in a way that ensures confidentiality. Depending on the nature of the disability, it could mean that reasonable adjustments cannot be made without compromising confidentiality. If this is the case, the student should be provided with all of the information to allow them to make an informed decision about what level of disclosure they are comfortable with.

Example

A dyslexic student requires copies of the lecture handouts to be printed on green paper. However, she does not want other students to know about her disability and is worried, that being given the handouts at the start of the class might draw attention to the disability.

Unlawful Approach

The department decides not to give the student any handouts at all so that attention is not drawn to the disability. This is likely to be unlawful because the department has not made a reasonable adjustment.

Lawful Approach

It is agreed that the student receives the notes on green paper a day before each class. This is a reasonable adjustment that the physics department should make.

Example

A student who has AIDS does not want other students to know, but their condition means that they sometimes need to have time off. His tutors have offered to arrange extra time in the laboratory for him to make up for the time he misses. However, he has refused this because he thinks it would draw attention to him and his condition.

Lawful Approach

After consulting with the student, the department agrees to provide him with laboratory notes beforehand so that he can prepare and maximise his time in the laboratory. The student is also allowed extra time to write up the experiments.

Unlawful Practice

An applicant with a visual impairment is asked at interview whether or not she was born with that condition. This is irrelevant to her ability to do the degree and may upset the applicant, potentially preventing her from performing as well as she would otherwise have done. This is likely to be unlawful.

3.2 What questions can an education provider lawfully ask about a disability?

Students should only be questioned about their disability if they are relevant to:

- reasonable adjustments requirements;
- the student's ability to do the course after a reasonable adjustment has been made.

Once a decision has been made to offer a place on a degree programme to a disabled person, it is good practice for the university and department to discuss reasonable adjustments with them before they start the degree, as well as to provide opportunities for further discussion while they are on the degree programme. For example, a student may have a degenerative disability and their support requirements may change over the duration of their course, or the support requirements that the department has arranged may not be suitable.

Lawful Practice

A student applies to study a physics-based course, but the admissions tutor has concerns about her ability to perform practical work safely because she is registered blind. The student is accepted on the course because she has the necessary academic requirements, and is asked to visit the department before enrolling to allow them to evaluate what support she would need in laboratory classes. CCTV is set up in the laboratory to allow her to enlarge what she is doing in the experiments. However, when the student arrives she tells the tutor that she doesn't need to use CCTV and gets out her hand-held magnifier. The student successfully performs the experiment and subsequently uses the magnifier in her practical classes.

Lawful Practice

An applicant who is a wheelchair user is asked whether any changes may be needed to the teaching and learning arrangements or physical environment at the university to accommodate him. This would not be unlawful.

3.3 Disclosure after enrolment

It is important that all staff are aware of the action that they need to take if they become aware that a student or applicant is disabled. If a student discloses a disability to any member of staff in the department (e.g. an admissions officer, personal tutor, department secretary or lecturer), then by law the university is deemed to know about that student's disability. Levels of confidentiality should be negotiated with the student, and they should be encouraged to explore reasonable adjustments, but the disclosure should be documented at the very least and departments should have a suitably confidential and robust process in place for bringing such information together. It should also be made clear to the student that they can always disclose in the future.

Focus on what barriers there are and what adjustments can be put in place to overcome any identified disadvantage. Asking basic questions about someone's disability is unlikely to be very helpful to you or the prospective student.

3.4 Can a disabled person be required to have a medical examination?

It is necessary to be cautious and sensitive when considering asking for a medical examination, because asking for this merely because someone has a disability is likely to be illegal. A university may, however, ask a disabled person to undergo an assessment of their reasonable adjustment requirements. This can be a part of the process of applying for a Disabled Students' Allowance, or for determining reasonable adjustments that may be required in, for example, unseen written examinations. There is more information about this in later sections.

! Example

A student discloses to his department that he has a disability that means that he requires extra time in written examinations.

✓ Lawful Approach

The student is referred to the university's disability officer, who assesses the student's needs and provides the appropriate documentation for the Board of Studies. The student is subsequently allowed extra time in all of his examinations.

✓ Lawful Practice

A student fails his examinations as a consequence of a disability that he has not disclosed to the university or department, despite the department giving the student several opportunities to disclose. The department has acted lawfully because it did not know about the student's disability, despite encouraging disclosure.

4.0 **Admissions**

Where departments are responsible for determining their own competence standards, **they are responsible for ensuring that they are not discriminatory**. Unnecessary or marginal requirements for entry to a degree programme should not be included because these can lead to discrimination.

The arrangements for student admissions are extensive and include more than just deciding who should be offered a place on a degree programme. The following sections cover both formal and informal processes.

Universities and departments need to ensure that all staff responsible for admissions and enrolments are aware of the university's duties towards disabled people. It is good practice to encourage disabled people to let the department know about any reasonable adjustment requirements in advance, and potential students should be given the opportunity to disclose disabilities at any point. However, reasonable adjustments should be anticipated as far as possible and departments should therefore be able to respond to many reasonable adjustment requests immediately.

4.1 University policy

Every university has a policy for the admission and support of disabled students, and those with specific responsibilities must become fully acquainted with this policy and its implementation.

The people listed below are those who usually have responsibility for the admission and support of disabled students and should be able to provide general information about what the university is doing to welcome and encourage them:

- registry officers;

- heads of department;

- external communications officers (those who design prospectuses and other marketing material);

- disability officers;

- course tutors;

- admissions tutors;

- school liaison officers.

These people are also important points of contact to ensure that information about a prospective student's reasonable adjustments are passed on to the appropriate members of staff.

4.2 Degree-programme requirements and competence standards

All applicants to higher-education institutions are required to meet a range of entrance requirements or conditions before they are admitted onto a degree programme. However, requirements or conditions only amount to competence standards if their purpose is to determine an applicant's competence or ability.

To ensure that they are not discriminating against disabled applicants, universities must be able to demonstrate that the competence standards that they use for selection are:

- appropriate and necessary;

- applied equally to disabled and non-disabled applicants;

- a proportionate means to achieving a legitimate aim.

Applicants' merits should be assessed after any reasonable adjustments have been made. If, after allowing for any adjustments, a disabled person does not meet the competence standards for the degree course, the university is not legally obliged to offer a place to them.

A university may have to justify rejecting a disabled person for lacking a qualification if the reason why the disabled person lacks it is related to their disability. Justification will involve showing that the particular qualification is either a genuine competence standard (which is applied equally to everyone and is proportionate and legitimate) or, where it does not concern application of a competence standard, showing that there is a material and substantial reason for the rejection.

Universities may be working with competence standards that have been set by qualifications bodies, or they may determine their own competence standards for particular courses and qualifications. Most physics departments have some autonomy about how a course is delivered. For example, the Institute of Physics accreditation process does not stipulate how a degree programme should be delivered, but it monitors the content and standard of a physics course to ensure that students are taught the necessary physics knowledge as well as other skills. Experimental work in a laboratory is a vital component of a physics programme. The accreditation process requires that all graduates of an accredited course should have some understanding and appreciation of experimental work and observation. However, how the students conduct the experimental work is not specified, and it is likely that any reasonable adjustments that disabled students require will not be incompatible with or contravene the accreditation process. This includes (but is not limited to) having an assistant perform the experiment if the student is unable to do so, providing a note-taker to take down results, providing laboratory manuals in accessible formats and allowing students to go through the experiments in advance to determine which would be most suitable. More information about the degree-accreditation process can be found at http://www.iop.org/activity/policy/Degree_Accreditation.

Example

The requirements for a physics course state that applicants "must have practical experience of laboratory work and be able to conduct experimental work".

Unlawful Approach

If the purpose of the laboratory sessions is to provide students with an illustration of principles of physics, this may not be a true competence standard and could be unlawful.

Lawful Approach

If the laboratory sessions are an essential component of furthering a student's experimental abilities (e.g. providing training for a research career), this could be a true competence standard.

Example

A disabled applicant who has five GCSEs but has no qualifications at A-level or equivalent due to periods of disability-related absences applies to a physics degree programme. The university specifies that the entrance criteria for its physics degree programmes are usually three A-levels and one AS-level or an equivalent level of qualification.

Lawful Approach

If the level of qualification required fairly reflects the level of study of the degree, and the degree programme cannot be reasonably altered, it is likely that the university will be justified in rejecting the disabled applicant.

Departments should regularly review the competence standards for all courses and examinations to ensure that they are non-discriminatory.

When designing or reviewing courses, it is important to consider and, if possible, incorporate any requirements that disabled students might request. For example, a university might have a policy that every course is periodically reviewed by the department and re-accredited by the appropriate institution. This would be a good opportunity to ensure that the competence standards are also reviewed to make certain that they are non-discriminatory. By doing this, education providers are unlikely to be acting in a way that constitutes unlawful discrimination within these duties.

4.3 Advertising a degree programme

Departments should be encouraged to state specifically that applications from disabled students are welcome, and to promote the type of support that is available.

> It is illegal to publish an advertisement that indicates, or might reasonably be understood to indicate, that:
>
> - the success of a person's application for the course may depend to any extent on their not having any disability or any particular disability;
> - the person processing the application is reluctant to make reasonable adjustments.

A university can be seen to be acting unlawfully if it refuses to make the necessary reasonable adjustments that another university is able to make.

Example

A blind student applies to do an experimental-physics degree.

❌ **Unlawful Approach**

The admissions tutor believes that applicants to the course must be able to conduct experimental work because the Institute of Physics accreditation process requires students to undertake laboratory work. The tutor thinks that a blind student would not be able to do this and, without first trying to understand what the student's experimental abilities are, he tries to persuade the student to do a theoretical-physics degree instead. This is likely to be unlawful.

✅ **Lawful Approach**

The physics department has not had a blind student before and is unsure what reasonable adjustments need to be made. The admissions tutor contacts the student to discuss support requirements, and he approaches the Institute of Physics to check how these reasonable adjustments fit in with the accreditation process. The student enrols on the experimental-physics programme and successfully manages the laboratory sessions.

Example

A university advertises a physics degree and states: "We are sorry but, because our laboratories are on the first floor, they are not accessible to disabled people".

❌ **Unlawful Approach**

This is likely to be unlawful.

✅ **Lawful Approach**

It would be preferable for the advertisement to state: "We welcome applications from disabled people and are committed to making reasonable adjustments".

4.4 Student-recruitment events

Open days, campus tours, summer schools, taster courses and mentoring schemes with local schools are all covered by disability legislation and need to be accessible to disabled students.

The following guidelines should be borne in mind:

- All staff and current students at these events should know what provisions the department has made for disabled students and the processes for ensuring that reasonable adjustments are made. If an individual is unable to help, they should know where to direct the student for more specific information. Open days often use current students and involve a tour of the department. The students involved in these should be aware that prospective disabled students may not have disclosed and alternative accessible arrangements should be available.

- It is the university's responsibility to ensure that the venue is accessible and that the materials handed out are available in alternative formats.

- Disabled students who are currently studying at the university should be encouraged to get involved.

- Students should be given the opportunity to report in advance any particular support requirements before they arrive. This will allow, for example, for an individual tour or an interpreter to be arranged if needed.

Example

An applicant with a hearing impairment has been asked to interview and informs the university that he lip-reads and will need to be able to see the interviewer's face clearly.

Lawful Approach

The interviewer ensures that her face is well lit, that she faces the applicant when speaking, that she speaks clearly and that she repeats questions if the candidate does not understand her. These are likely to be reasonable adjustments for the university to make.

Example

An applicant does not tell the university in advance that she uses a wheelchair.

Unlawful Approach

When the student arrives, she discovers that the interview is being held in an inaccessible room, and the university makes no attempt to move it somewhere more accessible.

4.5 The admissions process

By following general good practice, the necessity for individual requirements can be minimised.

For example, it would be considered good practice to:

- conduct all interviews in accessible rooms with a hearing loop;

- ensure that electronic, audio or Braille versions of the standard application form are available.

Any pre-course assessments (e.g. interviews, diagnostic tests) should be designed so that they can incorporate any necessary changes to the arrangements for the assessments, or to the way in which they are carried out. Applicants should be given the opportunity to indicate any relevant effects of a disability and to suggest adjustments to help to overcome any disadvantage that the disability may cause in an assessment.

However, do not assume that no adjustments need to be made simply because the applicant has not requested any.

4.6 The admissions process and testing students

The DDA and the DED do not prevent universities from carrying out aptitude tests or pre-course assessments. However, staff need to ensure that any tests and assessments, and the way in which they are carried out, do not exclude disabled candidates.

The requirement to take a test is likely to constitute a genuine competence standard if it is to ascertain whether or not a student has the ability to perform a certain task. For disabled students, any reasonable adjustments that are required must be taken into account.

Examples of reasonable adjustments can include:

- allowing a disabled person extra time to complete a test;

- permitting a disabled person the assistance of a reader or scribe during a test;

- assessing a disabled person by a different method.
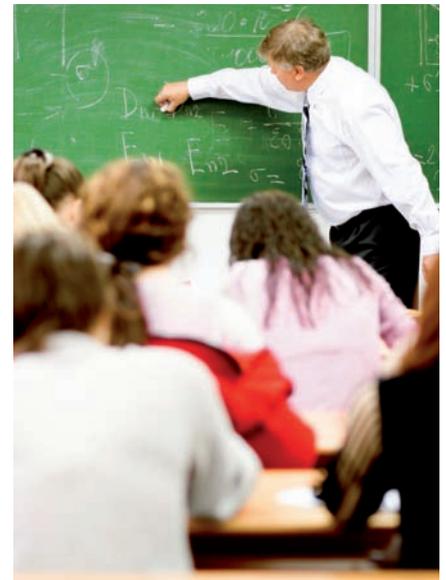
The extent to which such adjustments might be required depends on how closely the test is related to the course in question and what adjustments the university might have to make if the person was on the course.
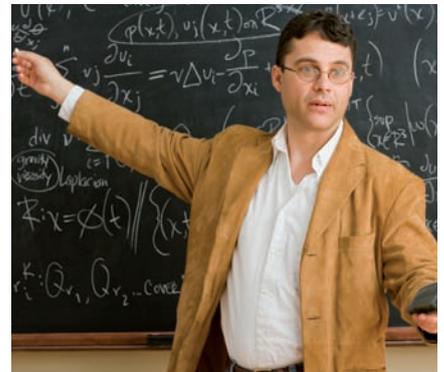
If a university relies on the results of tests conducted by external bodies, it is important to ensure that the external body makes reasonable adjustments for disabled students that are in line with university policies.

4.7 European Union and international students

European Union and international students have the same rights under the DED as home students. Departments need to ensure that support requirements are discussed and that the necessary systems are in place for disabled students from overseas.

4.8 The offer

Any offer of admission to a disabled person must be on identical terms to an offer made to any other potential student.

Example

An epileptic student who has only ever had seizures during the night applies to enrol on a course in the physics department.

✕ Unlawful Approach

The department informs him that he may not enrol on a course unless he has an assistant with him at all times in case he has a seizure. The department's demand is likely to be unlawful.

✓ Lawful Practice

A student discloses to her tutor that she has a disability, but she wants it to be kept confidential and does not want any reasonable adjustments or extra support. At the end of the first term, she fails her examinations. After consulting with the student, the tutor informs the Board of Studies that the student has a disability that may have affected her performance in the examinations, but because she does not want to disclose fully he is unable to go into detail. The Board of Studies agrees that the student can retake the examinations but that she should discuss with the tutor any reasonable adjustments that may be required in the future.

5.0 **Disabled Students' Allowance**

The Disabled Students' Allowance (DSA) can help to cover additional costs that a disabled person may face as a direct result of their disability when studying for a degree. Full-time, part-time and postgraduate students are eligible for the DSA. It is not means tested, is paid in addition to any student loan or bursary and does not have to be paid back. It is normally provided in the form of equipment, software or specific support, rather than as a financial grant.

An assessment by an educational psychologist may be required to establish, for example, a diagnosis of dyslexia and/or dyspraxia and a study-needs assessment should enable disabled students to discuss study strategies and to assess whether they would benefit from technological support.

DSAs can be used to fund, for example:

- specialist equipment, such as a laptop or other assistive technology;

- a non-medical helper, such as a note-taker or someone to assist in laboratory sessions;

- extra travel costs that may arise from a disability.

Students should apply as early as possible by providing evidence of their disability to their local authority or to The Open University (if appropriate). A DSA needs assessment helps students to find out what level of support they are eligible for. More information about eligibility and how to apply can be found in section 9, "Sources of further information".

Case study

Case study 2

I am currently studying for a physics degree. Along with the normal challenges of reading physics, I have the additional disadvantage of being blind.

I went to New College Worcester (NCW), which is a specialist school for the blind. At NCW, all of the usual subjects were offered and all of the staff were experienced in teaching the visually impaired. This meant that I had the support that enabled me to study physics without any additional problems. At A-level I studied physics, mathematics and further mathematics, achieving two As and a B. At the end of my school studies I continued with physics at university. When choosing which university to go to, I did not consider what facilities they had for disabled people because I realised that my needs as a blind person studying physics were specific and that few universities (if any) would have the resources that I need. I knew that I would need to change some of the ways in which I worked and that the university might need to make alterations, so I looked more at the attitude of each institution in terms of how they would support me.

Some tried to find different modules for me to do if they anticipated a difficulty, whereas others tried to help me do the usual course because I was doing well in my A-levels. I preferred the latter attitude because I knew that I was capable of studying physics from my experience at school. Going to university is a big challenge for anyone, but for me there were some other changes that made it even more of a challenge. This was the first time that I was in mainstream education where staff did not have experience of teaching physics to a blind person. I was now the expert in my specialist needs. The university had tried to predict some of my needs, and it was useful to have some alterations already made for when I started, although some were overcautious. Examples of this were some of the optional laboratory experiments selected for me. While it was good to have experiments that were possible for me to do, there were some that had been ruled out by the university that I would actually have been able to do and might have chosen if given the choice. There were some difficulties that were unforeseen but were solvable with some discussion between tutors and me. An example where this worked well was in the laboratory. One of the problems was how I worked with graphs. When there were few data points, I explained that, at school, I used tactile graph paper on corkboard with pins for data points. As a quick solution we used polystyrene sheet instead of corkboard. This worked quite well.

Unfortunately, there have been some difficulties that it has not been possible to find a completely satisfactory solution for. The biggest problem has been getting notes in Braille. At first glance this seems simple because Braille is a well defined code. There is software that can translate computer documents into Braille, and normally this works well, but unfortunately it has difficulties with notes containing complicated mathematical notation. It would be very difficult to find somebody who could produce accurate Braille notes, particularly with the mathematical notation. One solution is to substitute words for the symbols that the Braille software fails to translate. This is not satisfactory because it is bulky and slow to read. A satisfactory solution is not yet available, so I have started working on my own Braille-translation software, which is designed to translate mathematics into Braille.

Although I may have more problems to overcome as a blind person studying physics, I am managing to do my degree with help from the university. Unfortunately, many blind people are deterred from pursuing physics because of the difficulties that they encounter. Even though I have got as far as I have, I feel that I want to move away from the subject when I finish my degree because of these problems. I may continue to study physics when some solutions are found. One thing I hope for is that some of the projects tackling the difficulties encountered by blind people in physics will succeed soon, and this might mean that more blind students will be able to study physics.

6.0 **Teaching and learning**

A lecturer provides her students with reading lists prior to the start of the course to ensure that they have plenty of time to access the material in a suitable format.

To ensure that disabled students receive a good teaching experience, a department has to anticipate requirements by identifying where the potential barriers might exist and removing them.

6.1 Involving the disabled student

The most effective way to improve processes is to involve disabled students in any decision that the department wants to make about adjustments that affect them, and to monitor and review any changes made. What works for one disabled student may not work for another with the same impairment. Therefore, consulting the student about what changes are required and how they should be made is vital. Student feedback mechanisms should provide an opportunity to do this and disabled students should be actively encouraged to participate in staff-student committees.

Lawful Practice

A department tutor discusses with three dyslexic students their requirements for examinations. For one student, the department sets additional coursework in place of an examination. For another, the department provides additional time in the examination for the student to read and check answers. For a third, it allows the student to use a word processor in the examination.

Lawful Practice

A university physics department realised that it had an increasing number of students with Autism Spectrum Disorders. It found that, in particular, these students were struggling in the early weeks at a new institution and with group work. Tutors in the department decided to meet the new students a number of times before the start of the course to introduce themselves and allow the students to become familiar with the new environment and ways of working. Once they started on the course, these meetings continued at regular intervals. The department also worked with the disability office to set up a mentoring scheme, whereby second- and third-year physics students volunteered to be mentors to the new undergraduate students.

6.2 Teaching

Some simple adaptations by tutors and lecturers to their teaching practices can help to ensure that disabled students are not substantially disadvantaged. For example, it could be helpful to distribute the reading lists to all of the students, and this would have the added benefit of drawing less attention to the student with the disability.

6.3 Work placements, field trips and study abroad

Any work or study off site needs to be accessible to disabled students. It is important to check what accessible facilities are available beforehand and to consult with the student about any adjustments that may have to be made. The duty of reasonable adjustments applies equally to these aspects of a degree programme as to teaching and learning in the classroom, and the anticipatory duty also applies – a department cannot wait until a disabled person is on the course before it starts looking at accessibility issues.

A disabled student cannot legitimately be excluded from an essential component of a degree programme. Departments need to think about learning outcomes and if, for example, a field trip is deemed essential, then providing a disabled student with a learning assistant on the trip or recording inaccessible parts of a trip would be seen as reasonable adjustments.
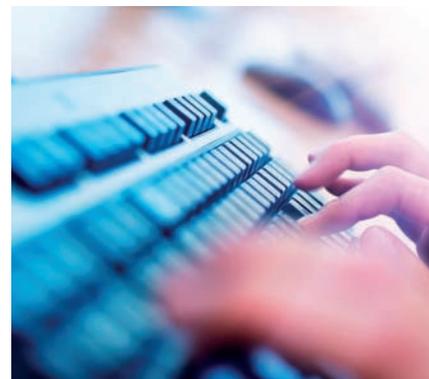
A student with limited manual dexterity has permission to record lectures on a Dictaphone and has an assistant to type up the lecture notes.

✔ Lawful Practice

It can take a considerable amount of time to convert text into Braille, particularly complex mathematical formulae, so a blind student is provided with all of her lecture notes before the start of term so that they can be converted into Braille. The student also has the opportunity to discuss the notes with the lecturers to ensure that the notes are correct.

✔ Lawful Practice

Students attend a national space centre as part of their astronomy course. The physics department ensures that the centre has the necessary expertise required to work with disabled students and is aware in advance of any requirements that the students may have. It also ensures that risk assessments are carried out where necessary and actively seeks feedback from the students.

6.4 Assignments, assessments, dissertations and project work

It may be necessary to alter the way in which work is assessed to remove potential barriers and enable disabled students to demonstrate that they have met the learning outcomes of the course. Such changes or adjustments do not have to be made available to all students but should be focused on removing barriers to allow disabled students to demonstrate their abilities fully.

Typical adjustments include:

- provision of flexible deadlines;

- support in researching book lists for those unable to "browse" in the library or online;

- adjustments to assignments, such as allowing a student to submit a piece of work on video rather than in writing;

- provision of study-skills support covering essay writing or dissertation skills;

- comments on coursework in alternative formats, such as electronic or verbal feedback;

- adjustments to the design or delivery of an examination;

- changes to the mode of an assessment if a particular method (e.g. an examination) causes unnecessary barriers.

Lawful Practice

The usual way of assessing a final-year project is via a student presentation and written dissertation. A student with a hearing impairment is unable to do a presentation without support. With the agreement of the department, the presentation is played back on a sound track with subtitles on the screen. For the Q&A session at the end of the presentation, he uses a sign-language interpreter. He does not require extra support with the dissertation work and this component of the assessment is therefore not altered. This is likely to be a lawful reasonable adjustment.

Remember, legislation requires universities to anticipate reasonable adjustments, so it is appropriate to anticipate the kinds of request that disabled students might make and to plan accordingly.

6.5 Competence standards and assessment

Competence standards can be justified in assessment, but only if the education provider can show that:

- the standard is (or would be) applied equally to people who do not have a particular disability;

- its application is a proportionate means of achieving a legitimate aim.

✔ **Lawful Practice**

A competence standard for a physics-degree programme states that students must demonstrate practical experimental skills. A university allows a student with a physical impairment to meet this competence standard by providing him with an assistant and allowing him extra time.

✔ **Lawful Practice**

A competence standard for a physics-degree programme states that students must have research and analytical skills, which are assessed through several pieces of coursework throughout the year. It takes a blind student longer to research and read articles in her preferred format, so she is allowed to submit her coursework later than other students. This is a reasonable adjustment that allows a disabled student to meet a competence standard.

6.6 Written examinations

Many disabled students are substantially disadvantaged in a traditional written examination because of the stamina required to continue writing or concentrate for a sustained period of time. In addition, the examination paper may present a barrier because the language in which it is written may be easy to misinterpret (e.g. by a student whose first language is sign language or by a student who has dyslexia). Special examination arrangements can be approved for students who, as a result of a disability, are unable to sit formal university examinations under normal conditions. Such special arrangements are designed to ensure that equitable examination conditions are provided and to allow students to demonstrate their knowledge and understanding.

Most universities have procedures whereby disabled students can apply to undertake unseen written examinations under special conditions. This will often require appropriate documentation from the student, such as supporting evidence of the disability, specific learning difficulty (e.g. dyslexia), mental health difficulty or other condition or reason for which any special arrangements have been requested. The assessment by the relevant professional would indicate the ways in which, and the extent to which, the condition might affect the student's performance in coursework and in open and closed examinations. Further information about this and how a special arrangement is decided should be available from the university's disability office.

The following list, while not exhaustive, provides some examples of steps that a department can take to ensure that any disabled students are not placed at any disadvantage:

- checking that the wording of the paper is as clear and straightforward as possible;

- providing a reader or sign-language interpreter;

- providing the paper in large print, Braille or other format;

- allowing extra time for students who are dyslexic;

- allowing rest breaks for students;

- providing an assistant to write the answers (students may need some time to practice with them before the examination);

- allowing a student to submit scripts on a computer (and also making sure that there are technicians on hand to deal with any technical problems);

- allowing access to food or medicine during an examination;

- providing a separate examination room, if necessary.

Example

If a disabled student is unable to do a written examination, then by law the department needs to find an alternative method of assessing the competence standard. It is unlawful to insist on an unseen written examination if the student has an impairment that prevents them from being able to sit it.

Unlawful Approach

A physics department stipulates that all students must sit a written examination on a materials module to demonstrate their understanding and knowledge of different material properties. That students "must sit a written examination on this subject" is unlikely to be a competence standard and is likely to be unlawful.

Lawful Approach

The competence standard is likely to be that students must show a "good understanding and knowledge" of the subject. A competence standard is used for determining a particular competence, ability or level of knowledge. A "good understanding and knowledge" could be assessed by a variety of methods (e.g. through a presentation, viva voce or coursework).

Reasonable adjustments must be made to allow students to demonstrate this standard (e.g. allowing a sign-language interpreter to interpret the presentation of a student using British sign language). Adjustments should not be made to the competence standard (e.g. the grade boundaries should not be lowered for a disabled student).

Remember: all students who have been accepted onto an undergraduate physics-degree course will have met the required entry requirements.

6.7 Oral assessment

Vivas, orals and presentations may place some disabled students at a substantial disadvantage, whereas for others, they may remove the substantial disadvantage caused by a written examination. Where a viva, oral or presentation is essential to assess the necessary competence standards, there is still a requirement to make reasonable adjustments to the process.

Lawful Practice

A university arranges a BSL interpreter for a deaf student at his PhD viva. This is likely to be a reasonable adjustment.

Lawful Practice

A student whose disability affects their manual dexterity is allowed to use an assistant to help set up apparatus and run an experiment under their instruction. This is likely to be a reasonable adjustment.

6.8 Practical work

Although the competence standard for a physics course is likely to require all students to demonstrate that they have the necessary practical skills, there may still be reasonable adjustments that can be made to the assessment process. Health and safety issues need to be taken into consideration, and it is recommended that the student and safety officer discuss any issues in advance.

Lawful Practice

A student with limited mobility opts to do a practical observational-astronomy course. The telescope is in an inaccessible room, but the department links up a computer in an accessible room and streams in the data for the student to analyse. This is likely to be a reasonable adjustment.

Provided that the necessary support is in place, it is highly unlikely that disabled students will not be able to "cope" with a physics degree or its methods of assessment.

7.0 **Assistive technology**

There is an increasing range of technology available that can assist disabled students with their courses. Some of this may be computer technology, but there are also many effective low-tech solutions that can be considered. This section covers the main areas of assistive technology available and provides some general ideas about how disabled students can use technology.

Technology that is suitable for one student may not be suitable for another, and it is important to talk to individuals to find out about the technology that they are using to determine how the teaching methods and resources might help or hinder them.

Preferences for technology may change over time or vary depending on the subject or module being studied, so it is necessary to review the support given to the student on a regular basis. The university disability office or IT department should be able to help in this area as it may have equipment or software that it can demonstrate or allow the student to try for a limited period.

It is also worth noting that simple adjustments can often be just as effective as high-tech alternatives. For example, providing information in an electronic format can help all students by allowing them to access material in their own time and in their preferred location, and to allow them to use their personal preference of software, font size, type or colour.

Although technology can help many disabled students with their courses, studying as a disabled student can be time-consuming and tiring. Because of this, disabled students may have to plan their time carefully and prepare in advance. Departments can help by also planning in advance and having materials and information available. If a student is new to technology, they may also need additional support at first as they familiarise themselves with it.

In section 9, "Sources of further information", there is a list of key organisations that provide advice and guidance about assistive technology.

The table on page 34 lists some examples of how assistive technology can help with support requirements.

❌ Unlawful Practice

A class is told to read a chapter of a book for the following day. A blind student cannot arrange support at such short notice, so he has to scan and convert the chapter himself. Without a sighted person to help to check the pages for pencil marks, the scanned text read "The dentist at the central…" instead of "The centre of the circle…".

Type of adjustment	Examples
Closed-circuit televisions (CCTVs)	CCTVs are electronic magnification systems that enlarge an image onto a monitor. They can enable partially sighted students to read enlarged textbooks, notes or diagrams. Most CCTV units are large and so will stay at the student's home. More university libraries are getting their own CCTV to allow students to study on site.
Low-tech vision aids (e.g. magnifiers)	Some students may prefer to use a simple hand-held magnifier to enlarge texts or images. This will depend on their sight and the amount that they have to read.
Screen-enlarging software (e.g. Zoom Text, SuperNova)	Screen-enlarging software can enable students to read enlarged texts and images on a computer. This software allows students to use their preferred size and colour schemes. Reading enlarged text on a computer screen can be slower than standard-sized print and can be tiring.
Screen-reading software (e.g. Jaws, Zoom Text Extra, Supernova, Window Eyes). Text-to-speech software (e.g. TextHelp)	Many blind or partially sighted students use screen-reading software to access electronic information. The software is able to read websites, e-mails, Excel tables, Word documents and PDFs. It is unable to read pictures or anything saved as an "image", or websites and PDFs if they are created in an inaccessible way. Using screen reading software is tiring and will still take a student longer to read and make notes. Similarly, text-to-speech software reads documents out aloud and is used by many sighted students to assist with reading.
Scanners and optical character recognition (OCR) (e.g. ABBY fine reader, OmniPage)	OCR software can allow printed text to be scanned and converted to a Word document, which can then be read by students using screen reading or text-to-speech software.
	The process of scanning and converting takes time, so students will be unable to read as quickly as their peers using this method alone. Pencil marks and binding can affect the image that is scanned. A sighted person is often needed to check the converted text against the original to avoid problems of inaccuracy and unreliability.
Braille, Braille embossers and Braille displays	The Braille embossers can print Braille and are vital if a blind student wants to have a permanent and portable copy of a text. Braille displays are special laptop attachments that produce Braille by refreshing a line of dots. This allows a blind person to read an electronic document using Braille rather than a screen reader and without embossing onto paper. Most people with useful vision will be taught to read print using aids or technology rather than to read Braille. You should not assume that a blind person will or will not read Braille.
Tactile diagrams	Tactile diagrams can be used to convey an image, symbol or graph to a blind or partially sighted student. This is done using raised images and textures (e.g. constructing graphs by using pins in a cork board/polystyrene).
Dictaphone, digital voice recorder or minidisc recorder	Making an audio recording of a class is a useful study strategy, allowing students to concentrate on the content rather than writing notes. Many students with and without disabilities find it difficult to take notes in class. This allows them to review the recording and make notes in their own time.
Voice-recognition software (e.g. Dragon)	Voice-recognition software allows the user to speak aloud to their computer instead of typing. This enables students who otherwise might find using a keyboard difficult or have difficulty expressing themselves in writing to produce written work.
Video camera	Deaf and hard-of-hearing students find it difficult to make notes because they need to look directly at the interpreter or lip-read throughout the class. Some deaf students might request to use a video camera to record the interpreter instead of taking notes.
Loop systems or radio aids	A hearing aid amplifies sound for people who are hard of hearing. However, as it amplifies all sound, it can still be difficult for a student to hear a lecturer or group discussion if there is background noise. With a loop system or a radio aid, the lecturer will wear a microphone and transmitter that will send their amplified voice to the hearing-aid receiver.
Equations	It can be difficult to convert complex equations into Braille. The science access project is developing methods for making science, mathematics and engineering information accessible to people with print disabilities. More information can be found at http://dots.physics.orst.edu.

8.0 **Mental-health issues**
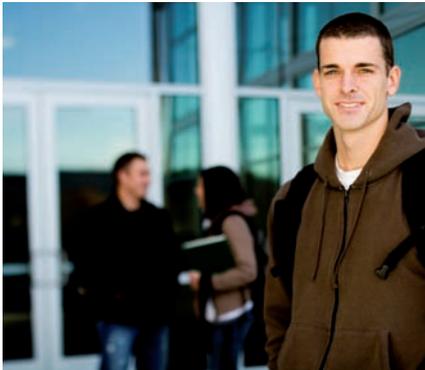
A university notices through monitoring that the institution has been successful at retaining most groups of disabled people on courses, but not people with mental-health conditions. It acts on this information by **contacting an organisation that provides advice and good practice in providing support to people with mental-health conditions** and acting on the advice received.

Mental-health issues are common and are covered under disability legislation. It is believed that 25% of people in the UK will experience some form of mental-health issue during their lifetime. The vast majority of people who have mental-health issues suffer from depression. Only a small proportion of crimes of violence are committed by people with a mental health diagnosis or who are receiving treatment.

There is a social stigma attached to mental-health issues, so it is important to create a supportive environment in the department and university, where disclosure can be safely encouraged. Workload pressure caused by deadlines can be stressful for all students, but these aspects of a degree course can disadvantage those who suffer from disabilities caused by mental-health issues in particular. Departments could be seen as acting illegally if they do not make reasonable adjustments for students with such a condition.

- It is illegal to assume that someone with a mental-health condition cannot do a demanding course.

- A lack of applicants with mental-health conditions does not mean that few people with this condition are interested in studying physics. It might mean that students have not declared their impairment for fear of discrimination.

- The behaviour of people with a mental-health condition is not usually unpredictable and can usually be controlled by the disabled student.

- It should not be assumed that people with a mental-health condition cannot undertake courses in which they will interact with vulnerable adults or children.

Most universities have a counselling service that can offer support to students (and staff) who are experiencing such difficulties. All students in the department should be made aware of these services and how to access them.

8.1 Disclosing a mental-health condition

People with a mental-health issue can be reluctant to disclose it. An under-representation of people with mental-health conditions in the department does not necessarily mean that there are no students or members of staff that have this disability. It could mean that people are choosing not to disclose their impairment because they are not confident that they will receive fair treatment or are worried that the department will not be supportive. However, the department still has an obligation to treat students fairly, despite their failure to disclose their disability.

8.2 What to do about challenging behaviour?

An individual may be aware of the context and impact of their disability-related behaviour, so it is best to involve them in managing it. Educating other members of staff and students about the context of this behaviour can go a long way to help allay fears and minimise misunderstandings.

8.3 Discipline and mental-health conditions

Disabled students (including those with mental-health conditions) should not be routinely disciplined for actions brought about by their disability. However, universities have a duty of care to other students and anyone who is being disruptive or is adversely affecting other students' learning experiences should be dealt with in an appropriate and consistent manner. Some universities have codes of conduct that outline the expected behaviour of students. Such guidance should detail what is inappropriate behaviour and subsequent disciplinary actions.

Where the exclusion of a disabled student (for example) is being considered because of a reason relating to that person's conduct, the institution should consider whether any reasonable adjustments need to be made to the disciplinary or exclusion process. In addition, if the conduct in question is related to the student's disability, this may be relevant in determining the appropriate sanction. If there are circumstances that can contribute to particular behaviour, it is necessary to address these.

✔ Lawful Practice

A student with a mental-health condition recognises that at times his behaviour may be difficult for others to understand and therefore can be wrongly interpreted. He asks his personal tutor to explain this to his fellow students so that his behaviour is more likely to be understood.

Factors outside university life will always affect a student's study. For some students, this could result in having to take some time out from a course, which may not necessarily be disability related, but could be to do with family or financial commitments, bereavement, problems with accommodation or illness. Some students may be in a position to catch up with missed work, but for others the time missed might be too great. Universities will have a standard procedure for allowing a student to "interrupt" their studies, and departments should support and provide good advice and information to all students about their options in these cases. For disabled students, the department also has a duty to find out about their disability and to make reasonable adjustments.

Remember: departments should not be working in isolation. The university as a whole will have experience in dealing with disabled students. Departments should utilise these resources and work proactively with disability offices and student services to ensure that the best possible advice and support is given to all students.

Example

A student with schizophrenia shouts at his tutor and uses inappropriate language. University policy would usually result in suspension as a sanction for such behaviour.

Lawful Approach

Knowledge of the student's condition allows this to be taken into account during the subsequent investigation. The university discovers that the tutor had missed a tutorial session and that this had distressed the student, who had not behaved in this way before. As a result, the university does not suspend the student but gives a written warning that such behaviour is unacceptable and must not be repeated. This is likely to be a reasonable adjustment to make.

Example

A student with a mental-health condition is having trouble with his landlord, who is threatening to evict him. This is causing him to miss lectures and he hasn't handed in any work for weeks.

Unlawful Approach

The department finds out what is happening to the student but decides that the problem is not sufficient to have caused him to miss assignments. The student is given a zero for the missed work. It is likely that the department is being unlawful in this case.

Lawful Approach

The student talks to his lecturer about what is going on and how his behaviour is affected by his disability. The department explains the different options available to the student, and he decides that he will defer half of his assignments until after the holidays, and focus on completing work for the remaining assignments this term. The department has met its duty by providing support for this student.

9.0 **Sources of further information**

Access to science

- The book Able Scientist/Technologist, Disabled Person by C Hopkins and A V Jones, and a video entitled Disabled Students in Chemistry, include a comprehensive list of laboratory adaptations for disabled scientists. Both are available, at £15 each, from Eslek Publications, 36 West End, Long Whatton, Leicestershire LE12 5DW (e-mail ironsideuk@aol.com) or Commercial Centre, DICE Centre, Nottingham Trent University, Nottingham (tel 01159 418418).

- DO-IT project, University of Washington, includes many resources about issues relating to technology and accessibility, including articles about accessible computer laboratories (http://www.washington.edu/doit/Brochures/Technology/comp.access.html).

- Royal Society of Chemistry – Note on Disabled Workers in Laboratories (http://www.rsc.org/pdf/ehsc/disabled.pdf).

Accessible curricula

- South West Academic Network for Students with Disabilities (SWANDS) has produced a staff-development resource aimed at helping staff in higher education to understand and meet the requirements of the DDA, following its amendment by the Special Educational Needs and Disability Act (SENDA) (http://www.plym.ac.uk/pages/view.asp?page=3243).

- Creating an Accessible Curriculum for Students with Disabilities. Here you will also find online copies of the original Teachability Booklet and the new booklets (http://www.teachability.strath.ac.uk/).

- Inclusive Assessment in HE – the SPACE project. Staff and student partnership for assessment change and evaluation (http://www.plymouth.ac.uk/disability).

Technology links

There is a lot of information available online. Listed below are a few of the key organisations that can provide advice and guidance:

- AbilityNet provides a free information and advice service about all aspects of computers and technology for disabled people (http://www.abilitynet.org.uk/).

- Access all Areas: Disability, Technology and Learning. This contains excellent guidance on accessible e-learning (http://www.techdis.ac.uk/resources/files/AAA.pdf).

- The TechDis Technology Database provides searchable information about assistive software and hardware (http://www.techdis.ac.uk/index.php?p=3_1).

Access guidance

- Code of Practice (Revised) for Providers of Post-16 Education and Related Services (http://www.equalityhumanrights.com/Documents/DRC/rename/tsodrccop-web%20post%2016%20cop%20240407.pdf).

- Understanding the DDA: Guidance for Universities, Schools and Colleges (http://www.skill.org.uk).

- Providing Work Placements for Disabled Students and Finding out about People's Disabilities. Good Practice Guides (http://www.lifelonglearning. co.uk/placements/index).

Support relating to specific impairments

- A site aimed at university students with Asperger's syndrome and autism (http://www.users.dircon.co.uk/~cns/index.html).

- The RNID website provides hearing-impairment related news, information, services and support, plus an online shop (http://www.rnid.org.uk/).

- The RNIB website includes information about blindness and many different visual impairments, as well as about designing accessible environments and assistive technologies (http://www.rnib.org.uk/).

- The British Dyslexia Association is a national organisation that aims to raise the awareness of the evidence and effects of dyslexia, as well as to develop services that meet the needs of dyslexic people (http://www.bdadyslexia.org.uk/).

- This manual has been produced under a HEFCE-funded project at Lancaster University (2000–2002), dedicated to the dissemination of good practice in supporting students with mental-health difficulties (http://www.studentmentalhealth.org.uk/).

- National Association for Mental Health (MIND; http://www.mind.org.uk/About+Mind).

Funding

- Information about DSAs for higher-education students (http://www.direct.gov.uk/en/DisabledPeople/EducationAndTraining/ HigherEducation/DG_10034898).

Key organisations

- Higher Education Funding Council for England. HEFCE's website provides information about many useful publications, including Guidelines for Accessible Courseware (http://www.hefce.ac.uk/).

- Learning and Teaching Support Network. This network of 24 subject centres enables the sharing of good practice and the provision of learning and teaching resources, as well as information for the higher-education community. This is part of the HE Academy (http://www.heacademy.ac.uk/).

- Skill is a national charity promoting opportunities for young people and adults with any kind of disability in post-16 education, training and employment across the UK. Its website provides a wealth of information for both staff and disabled students (http://www.skill.org.uk/).

10.0 **Appendix: pro forma of potential barriers**

The below pro forma can be used to carry out an informal "disability audit" of existing practices or procedures.
Record any notes and thoughts on existing potential barriers and your ideas for ensuring that all students have
the access and support they require.

Potential barrier	Comment
Admissions and open days	
Enrolment and induction	
Teaching, including classes, lectures and seminars	
Practical laboratory sessions	
Curriculum design, such as content and structure	
Communication	

Potential barrier	Comment
Examinations and assessments	
Field trips and outdoor education	
Arranging study abroad or work placements	
Informal/optional study-skills sessions	
Courses that may be held outside of the department or university	
Independent learning opportunities, such as e-learning	

Potential barrier	Comment
Learning facilities, such as classrooms, lecture theatres, laboratories, studios and darkrooms	
Learning equipment and materials, such as laboratory apparatus, computer facilities and handouts	
Libraries, learning and information centres, and their resources	
Graduation and certificate ceremonies	
The physical environment	

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