

**Strathclyde Institute of Pharmacy and Biomedical Sciences**

**Review on the Accessibility of Teaching and Assessment for Disabled Students**

**February 2009 – July 2009**

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**Approved by Head of Institute: Professor Graham Coombs**

**PREFACE AND SUMMARY:** The following is a report that represents the Department's Impact Assessment of its provision for disabled students.

The review was carried out between Feb-July 2009, in the recently formed institute, and was seen as an opportunity to carry out a SWOT analysis of current provision and any gaps. The whole department was informed that the review would take place and were encouraged to have input. Individual members of staff in strategic areas as well as both undergraduate and postgraduate students were contacted to give additional, specific feedback. Although numbers of students requiring adjustments has been low, specific case studies are highlighted to demonstrate both good and bad practice. On the whole, both staff and students feel that we are providing a good learning experience for all our students, such that disabled students have an equally beneficial learning experience that can help them with their future aspirations. Some issues concerning privacy information and maintaining anonymity was viewed by staff as an obstacle to helping students. However, the department will engage more closely with the Disability Service who will provide further guidance on how to overcome these hurdles.

Our main plans to improve our learning experience for disabled students include:

- Improvements are being made to our prospectus entries and promotional material used to recruit students to our courses, as well as to our Selector databases for information on students prior to arrival and follow-on through their time at university.
- Staff development and guidance will be improved particularly for new staff and demonstrators.
- Better use of centralised facilities will be made..
- Improving communication to staff regarding student needs within the specific course they teach.
- Monitoring that requests to staff to regard student needs are being adhered to.
- Preparation of a departmental Handbook to show staff examples of good practice and teaching materials that could be prepared.
- Reviews of all course materials to ensure that they do not disadvantage students with disabilities.
- Investigate good practices in other institutions.
- Have greater involvement of disabled students in informing the department of good practices.

The review was highly commended by the Review Panel. The Department will continue to take its duty seriously and will involve disabled students in helping to inform the Department in order to ensure achievement of disability equality for its students.

- 1 Background information:** *This should include a statement of the relevant competence standards expected by professional bodies and/or by your Department, observations about competence standards of the course in relation to disabled students' impairments, knowledge of staff awareness of relevant legislation, etc.*

The Strathclyde Institute of Pharmacy and Biomedical Sciences (SIPBS) was formed in August 2006 and is made up of five former departments: Pharmaceutical Sciences, Bioscience, Immunology, Applied Physiology and Physiology & Pharmacology. It is now the largest academic department in the university, comprising 44% of the Faculty of Science and operates over four geographically separated sites. Collaboration also takes place with other departments and organisations to fulfill our teaching requirements. Merger of this many departments, involving staff used to working under different systems, has involved major restructuring of the way in which the department is managed and run. It has taken several management structures to be trialed before settling on one that seems to be working, and has been since January 2008. The size of the department means that we are catering for very large numbers of students with a variety of needs. In the 2007-2008 academic session, the department had approximately 1000 undergraduate and 120 postgraduate (instructional) students, as well as 100 Malaysian students in the final year of their Pharmacy programme. This review has therefore taken place in a department that is still in its relative infancy and where it must be recognised that the systems in place are not perfect and require on-going improvements. The purpose of this review was seen as a positive opportunity to inform the whole department of the current practices and to identify the gaps that require attention.

Previously, the five former departments had joint teaching across their courses. Issues such as curriculum design, with respect to disabled students, were addressed at individual departmental meetings on a case-by-case basis. If necessary, they could be taken to one of the two cross-departmental teaching management committees. Broadly speaking, the framework and support structures from the former departments have been retained within SIPBS, with significant rationalisation to avoid duplication. Currently, we have three departmental teaching management committees; two undergraduate (one for the Biomedical Sciences and the other for Pharmacy) and one for the department's four MSc programmes. At a departmental level, a single Institute Teaching Committee coordinates the activities of these three committees. Management of the department's research programmes is through the department's Graduate School. The Institute Management Group is ultimately responsible to all departmental activities and all the separate management committees report to this group.

Two of our teaching programmes are professionally accredited; the MPharm in Pharmacy by the Royal Pharmaceutical Society of Great Britain (RPSGB) and the BSc (Hons) in Biomedical Science by the Institute of Biomedical Science. Both the Pharmacy and Biomedical Science professions have the possession of an accredited degree as one of their competence standards. However, neither of the regulatory bodies (RPSGB for Pharmacists and the Health Professional Council for Biomedical Scientists) publishes a competence standard, with respect to disability, for their profession. Therefore, we currently adopt the same competence standard across all our degree programmes regardless of their accreditation. The competence standard we set is applicable to any laboratory science and the only mandatory requirement is that the student can, with reasonable adjustment, engage in hands-on laboratory experimentation, is able to understand scientific language and carry out data analysis. In this respect, the extent to which adjustment can be made is considerable and it is therefore difficult to envisage barriers to completion of our degrees.

Our core academic qualifications required for entrance to our undergraduate courses include Standard Grade Chemistry (for background in science), English (for ability to write, read, understand and communicate effectively) and Mathematics (to carry out dilutions, weighing of reagents accurately, calculations and analysis of data) and Higher Grade Biology and Chemistry. We also have students who do electives or come from other departments (such as Speech and Language students from Jordanhill), in these cases the same academic qualifications are not required i.e. Biology and Chemistry backgrounds, but these students do not do laboratory work. We have students with dyslexia and dyscalculia in our courses, who have graduated successfully; therefore limitations caused by these conditions are not seen as prohibitive to completing our courses. Where we have had students with severe visual or auditory impairments an assistant has been used and alternative methods of assessment have been sought. Therefore, taking an extreme example where a student does not have any manual dexterity, the department could envisage using similar measures and would make special provision if the need arises. The main concerns of the department are to provide a good and useful learning experience to all our students and to ensure that there are no health and safety issues. The majority of our students will have some prior experience of laboratory work and know their own abilities/limitations to carry out experimentation and analysis effectively. Therefore, detailed discussion with the student is carried out in order that readjustments can be made.

Entrance to our postgraduate programmes requires previous qualifications to UK degree standard of at least a lower second-class Honours degree. Therefore, some knowledge and experience of practical work and the students' own limitations are already known to the student. SIPBS provides a supportive environment and has helped students who in previous institutions have had bad experiences.

The RPSGB is in the process of establishing "Fitness-to-Practice" guidelines that set out the process for determining whether an individual is fit to practice as a student on an MPharm degree programme. This Fitness-to-Practice policy covers the procedures for determining fitness to practice with respect to educational and professional requirements

and also disability – although in the guidelines cite no specific examples of the latter. The RPSGB draft guidelines for fitness to practice as a pharmacy student state that:

- Pharmacy education and training should be able to accommodate people with a range of ambitions and different backgrounds, as well as those with health conditions and disabilities.
- Schools must make reasonable adjustments for students with an impairment in how they can achieve the outcomes required on graduation and during the course. Reasonable adjustments should reflect the requirements of the *Disability Discrimination Acts* (1995 & 2005). Although adjustments cannot be made to the outcomes of the course or its constituent parts, reasonable adjustments can be made to the method of learning and the assessment by which a student demonstrates the achievement of outcomes.
- In most cases, health conditions and/or disabilities will not raise fitness to practice concerns, provided the student receives the appropriate care and any reasonable adjustments necessary to study and work safely.
- An appropriate service at the school or university should assess and advise on the impact of an impairment or health problem on any student's fitness to practice and, where appropriate, advise on adjustments in liaison with disability advisers.

The department is fully aware of all developments in the areas of pharmacy student fitness-to-practice as adherence to the newly developed procedures is an absolute requirement of the continued accreditation of the MPharm degree programme.

**2 What data did your department have about possible barriers facing disabled students in teaching and assessments before your department's review of accessibility of teaching and assessment? (E.g. relative statistics on disabled applicants, relative success of disabled students by degrees and other awards obtained, feedback from disabled students, reports from Departmental Disability Contacts on the experience of disabled students who have studied with you in the past.)**

Since the formation of SIPBS, data from the individual former departments has not been retained. The former departments may have kept such data, but that was difficult to ascertain. Currently, SIPBS has not been collating relative statistics on our disabled applicants or students, but now that the department is becoming established, consideration will be given to doing so. It is difficult for SIPBS to have a view about the barriers facing disabled students before the review took place, mainly because the former departments were relatively small, consisting of for example 20-30 teaching staff who could deal with issues relatively quickly at ground level. The size of the merged SIPBS, requires centralisation of services in order to effectively deal with any issues. There maybe good practices used in some of the other large departments in the university and it would be useful to know what these are once the reviews of all departments are published.

In terms of success of students with disabilities, we do not keep this information. The Careers Service keeps statistics on destinations of students once they graduate, but this is considered “sensitive” data and so is not information normally given to departments. Our request for information in this review gave a sample of destinations for last year, see Table below:

<b>Department</b>	<b>Number</b>	<b>PG/UG</b>	<b>Destination</b>
SIPBS	2	Undergraduate	Further Study
SIPBS	1	Undergraduate	In Employment
SIPBS	1	Undergraduate	Not Available

It is important to understand the coordinated structures in place for helping disabled students. This is the best model of practice that we have tried, and we recognise that there is still room for improvement. There are four Disability Contacts within the department, one member of academic staff and three senior departmental teaching administrators. The aim of these people is to ensure that all degree programmes within SIPBS are pro-actively developed and managed to be maximally compliant with the requirements for disabled student accessibility. The areas of responsibility of the Disability Contacts are as follows:

<b>Disability Contact</b>	<b>Area of Responsibility</b>
Dr Chris Prior	SIPBS Head of Teaching
Mrs Margaret Laird	Undergraduate Biomedical Sciences
Miss Carol Barnett	Undergraduate Master of Pharmacy
Mrs Jacqui Miller	Postgraduate Instructional

These individuals are able to interface with many individual/agencies both within the department (e.g. Class and Course organisers, examinations officers, teaching managers, safety officers) and outside the department (e.g. Disability Services, Estates, Registry, Safety Office, Occupational Health, Student Counseling) to ensure that potential and actual needs of disabled students are identified and suitable provisions are made. The administrators are in charge of collating information from the Disability Service and subsequently working with appropriate members of academic staff (e.g. Class and Year Coordinators) to ensure the required information is disseminated. Information from PEGASUS is accessed at the start of Semester and at regular intervals and emailed to all teaching staff. The administrators are directly responsible for implementing any adjustments to timetables or examinations as a consequence of recommendations from Disability Services. The advantage of this approach is that the administrators have close contact with the students so that consistent and appropriate adjustments can be made, without individual students having to speak to a large number of teaching staff, some of

whom might only teach them once. The department considers this a highly efficient use of staff and time, while giving personalised attention to the students themselves. It also centralises information co-ordination. Any member of academic staff who wishes to gain further understanding or information regarding necessary adjustments for disabled students knows that any information the department holds is available from the administrators. Since the administrators have a better knowledge of the students, this is the preferred route staff take to getting information, rather than accessing PEGASUS on a regular basis.

The single point-of-contact approach is also effective for receiving and retaining feedback from disabled students since, throughout their studies, they become familiar with the individuals involved and we find the exchange of information, in both directions, is far more productive than when students are required to consult with a different member of academic staff for each class they are taking. Indeed, informal feedback from disabled students to the administrators has indicated that they much prefer the single point-of-contact approach for the management of all their teaching requirements. The role of the administrators in managing disability requirements and in communicating information to academic staff is overseen by the department's academic Disability Contact, Dr Chris Prior, who is also Head of Teaching within the department and so has an overview of staff and student interactions and requirements.

The department underwent its Quinquennial Annual Review in January 2009. As part of this review we were required to outline our procedures for managing disabled students. The review panel offered no feedback and had no recommendations regarding these procedures.

- 3 Outline the procedure you used to conduct your review of the accessibility of your curriculum design and delivery for disabled students.** *How did you secure the involvement of staff according to their teaching roles within the Department? Did you arrange information sessions for staff in conjunction with the Disability Service or other University services? Based on the data and other evidence held by your department or by the Disability Service, which areas of curriculum design and delivery did you prioritise for your review, as those areas where you think disabled students might encounter significant barriers? (Course Information, recruitment and marketing; Lectures; Seminars; Placements, Field Trips, Study Abroad, Practical Classes, Exams and Assessments, E-learning, Course and Curriculum Design, other?)*

Our approach was to consider the accessibility of our teaching from staff and student perspectives.

### 3.1. Staff Perspective

**All staff** were notified that the review would take place via the Weekly Newsletter and invited to bring any comments to the attention of the Coordinator (Dr Valerie Ferro). This method was chosen, as we are a very large department and it would target different types of staff and postgraduate students who may be involved in teaching disabled students, including Demonstrators in teaching labs, Technicians, Research students, Lecturers, Researchers.

Consultation then took place with the **SIPBS Head of Teaching** who could provide an overview of systems historically and currently in place. Areas of priority and the staff who should be contacted to discuss issues in more detail were identified. Since, we are a large department dispersed over several sites, it was thought best to initially e-mail staff involved, but this proved to be a “hit and miss” approach, with only some people responding. A far more effective approach was to speak to individual members of staff.

The following personnel were interviewed to gain a comprehensive view of procedures and practices in place:

- **Academic Selectors, Administration staff associated with Academic Selection, VLE website designers, Open Day coordinators, Registry, Schools Liaison, International Office**
- **Programme Heads of Teaching, Course Directors, Year Coordinators, Class Coordinators**
- **Room booking/Timetabling Administrators**
- **Teaching Staff including Technicians, Demonstrators, Academic staff**
- **Exchange coordinators, Administrators in charge of Placements**
- **Research Group Leaders, Safety Officers, Technicians in labs, PGR Students in labs, disabled students**

Consultation also took place with the **Departmental Disability Contacts (DDC)**. Since these individuals are responsible for managing disabled student requirements at a departmental level, they have the best handle on what is working and what is not.

The draft review was sent to the Disability Services for feedback and then sent to **all staff** for comment, before submission.

### 3.2. Student Perspective

**Undergraduate Students** were contacted via discussion threads of our VLE to see if we could get specific feedback. Less than 0.5% students provided feedback – mainly students who were not disabled or those who had disabled friends or those who had slight impairments but had not declared them. Therefore, obtaining responses from non-disabled students was useful, and showed awareness of issues. One route used to gain representative information about student views is through the Staff-Student Committee, but as disabled student issues are normally dealt with individually by the DDC, there

have been no issues reported in this way since the formation of SIPBS. Some Class Coordinators get feedback from students when there are complaints for example about lecturers not being heard and these are dealt with immediately, but not necessarily documented.

The views of disabled students were also acquired indirectly through consultation with the DDC who are the main departmental points of contact for all students registered with the University's Disability Services. The DDC were able to inform the review of those areas of practice that were most often highlighted by disabled students as areas of concern. An example of this indirect feedback is the need for appropriately prepared class notes, handouts and lecture presentations to be made available in a timely fashion through the SPIDER VLE.

**Postgraduate students** were contacted by email. As our numbers of disabled postgraduate students are low, this included a former disabled student in the department. We currently do not have a DDC dedicated to PGR because it is felt that these students are more likely to get effective help through the Disability Services and the individual member of staff whom they are placed under. However, as this review has highlighted this gap in provision, we will address it through the Graduate School. Views were also sought from PGR students in labs and their interaction with disabled students as well as Demonstrators to see what issues they face.

The timing of the review period (falling during the holidays) did not make it possible for the draft review to be commented on by students, but their feedback will be sought when the next academic session starts back to inform the department of future improvements.

**4 What aspects of course or curriculum design or delivery have you identified as potentially disadvantaging to some or all disabled students? (You should comment on individual practices; departmental procedures and facilities; wider University arrangements and facilities; any constraints imposed by relevant professional bodies or other external agencies such as placement providers.)**

On the whole, any aspects where the department has control, individual needs can and are taken into account and modifications made to the existing procedures. Where things are not under the control of the department e.g. estates management, SIPBS can only make recommendations. Based on the discussions with staff and feedback from students, the following list shows the areas of priority within the department and impact of the university procedures that were examined in the review:

- **Course information** – prior to arrival at Strathclyde, promotional material, website/prospectus, Open Days
- **UCAS/PG application procedures** - departmental and university
- **Course descriptors/handbooks** – dissemination of information to students
- **Lectures/Seminars** – room bookings
- **Practical Classes** – design of classes and estates issues
- **Placements/Field Trips/Study Abroad**
- **Exams and assessment** – arrangements in place, allowances
- **VLE** – design and accessibility
- **Research Labs** – supervisors and end-users

## 4.1 Staff Perspective

### 4.1.1 Course Information

As far as our current publicity and details of course content are concerned, very little, if no mention, is made of disability. There is a section in the main prospectus that relates to the Disability Service and this was viewed in the past as sufficient information to enable prospective students to make contact with the Service to discuss issues within departments. It is now recognised that this is inadequate and could be a barrier to recruitment of disabled students. A new Academic Selector (Dr Valerie Ferro) has recently taken over the role for undergraduate Biological Sciences and so is in process of making revisions to the prospectus and publicity material for 2011. A greater emphasis will be placed on highlighting that SIPBS' courses are available for students with disabilities and potential applicants will be encouraged to discuss any issues with the Selector prior to applying. Where publication space is limited, our website will reflect more details showing the accessibility of our courses to disabled students. Likewise the other Academic Selectors will review their entries to ensure clarity of competency standards and provisions for disabled students.

Other possible times when potential applicants (pre-UCAS application) could raise the issue of whether their special needs will be an obstacle to their acceptance and progress on our courses and their future career prospects, are dealt with on an individual basis by the Academic Selectors, having first checked that they qualify for acceptance on their academic entrance requirements. Postgraduate numbers are very low, and most enquiries are likely to be at undergraduate level. For the Pharmacy course there are usually around 3-5% of students with declared disability. Although there is no SOP followed by either the postgraduate or undergraduate Selectors, this is something that will be considered in the future. If an enquiry arises, the current practice is for the Academic Selector to assure the prospective student that the department would take all reasonable steps to enable that the disabled student could take full part in the courses on offer. The Academic Selector then contacts the Disability Services if further advice of a particular disability is required. If necessary, meetings are arranged with the applicant, representatives from the Disability Service and relevant members of staff from the Department (e.g. Head of Teaching, Year Coordinator, Safety Convenor, and Laboratory Managers). The student then applies

through UCAS (for undergraduates) and through the Graduate School (for postgraduates).

#### **4.1.2 UCAS/PG Application Procedures**

Currently, the Academic Selectors for both postgraduate and undergraduate courses in SIPBS do not consider disability in reaching an offer decision, nor enter into any discussion with the applicant about it, unless it is proactively raised by the applicant themselves. The decision is based solely on academic record, personal statement and referees report. This is clearly a problem and makes an assumption that once an offer is made that any and every adjustment that the student requires will be forthcoming. Since there is no SOP as to what happens next, some Selectors notify Disability Services that they have made an offer, while others wait until the student arrives at Strathclyde, where Registry informs them that they need to register with the Disability Services, and then communication begins with the department. A full consultation then takes place between the First Year Coordinator, the Disability Service and the student. Ideally, the appropriate Class coordinators should also be contacted so that staff teaching in their particular class can be notified, however, this is not a standard procedure and in this case we recognise that an SOP would prevent problems occurring due to non-communication. Our experience is that it is important to start the assessment of needs process early so that the Administrators, Course Coordinators, Class-Coordinators can be well prepared before the student arrives. The reason for this is there is a shortage of scribes for lectures and exams for special needs students. Although postgraduate students could help, Registry payments for such duties are below the level paid for demonstrating duties (paid by departments) and so there is little uptake for this type of job. For the next recruitment cycle, all the Academic Selectors will be asked to identify potential applicants with disabilities to the DDC, so that the department is aware at an earlier stage what the requirements will be.

#### **4.1.3 Course Descriptors/Course Handbooks**

The course descriptors do not make reference to disability issues and some Course and Year Handbooks had information that was out of date. Where necessary, this will be reworded for the next academic session as follows:

“The Disability Service located is in Room 441, Graham Hills Building, 50 George Street, tel. 0141 548 3402, e-mail: [disabilityservice@strath.ac.uk](mailto:disabilityservice@strath.ac.uk). Disabled students should contact the Service as early as possible in the academic year if they feel that they will require additional support or equipment.

It is essential that students who think that they will require special exam arrangements make an appointment with the Student Adviser (Disability Service) to discuss these arrangements, and that they do so **as early as possible prior to their first diet of exams**, so that there is ample time to supply written evidence of the need for these special arrangements. Students

should note that if they have a requirement for special arrangements for exams, they must also inform Ms Carol Barnett, Administrator, **at least 2 weeks before each exam** so that the necessary arrangements can be made. Reminders will be put out on SPIDER for you to contact Carol Barnett a month in advance and 2 weeks before each exam.”

#### **4.1.4 Lectures/Seminars – room bookings/course materials**

Our DDC deal with special requirements related to issues such as teaching accommodation and IT provisions. Where lecture material and laboratory class adjustments are required, the Class Co-ordinators are notified and they work with teaching staff to ensure this is implemented. Since we have a centralised system through our DDC, room bookings are made, taking into account any notified adjustment requirements. This can be exemplified in the case described below, which shows how redesigning timetables can ensure a good learning experience:

**Case Study 1:** A student with a severe mobility and fatigue syndrome required extensive revision made to timetabling and room bookings. Careful consideration had to be given to minimise movement around the University campus and to avoid long consecutive strings of teaching events. It was also necessary to provide rest rooms close by so that if the student had to rest between teaching events this was possible. For exams lasting long periods, the exams had to be split into smaller time slots to allow the student to rest in between.

The department ensures that ALL staff are aware of the adjustment requirements of disabled students. The DDC proactively discuss students’ progress at regular intervals and facilitate students’ interactions with other staff. Since centralising all our disability compliance activities, we have seen a significant improvement in the efficiency and accuracy of special needs provision compared to the previous model where each member of academic staff with responsibility for a class was also responsible for ensuring effective provision of all special needs arrangements related to that class.

The procedure at the start of Semester is for the DDC to notify all teaching staff of students in their classes with declared and agreed adjustment requirements and the nature of the adjustment. The Disability Service provides information on the number and type of reasonable adjustment requests, which require to be made in each academic year and this is sent out to all staff. This has not been an adequate system, as sometimes the information has come out too late for staff to respond early in Semester 1. In part, this has been due to adjustment of working in a much larger merged department, but also because there has been a major overhaul in our teaching courses from a 10 credit to a 20 credit framework. This has occupied staff and administrator time in re-writing all course materials, and the necessity for staff to teach new lecture material with a rapid implementation time. This is not envisaged to be a problem in the new academic session and staff will be encouraged to access PEGASUS directly to get information for themselves. Statistics provided by the Disability Service to show staff usage of

PEGASUS as a means of obtaining data on students with disabilities shows only 13 % of staff do this. These statistics are misleading as it shows all “academic” staff, who are not necessarily teaching staff or have any interaction with disabled students. This is also a reflection of the centralised system that operates in SIPBS through the DDC who download the information from PEGASUS and send it to staff. Hence, the department’s three administrative and one academic Disability Contacts account for a significant proportion of the total accesses. The other staff that access the information tend to be Heads of Teaching Programmes and Year Coordinators; they then disseminate the information to the appropriate staff.

Disabled students are encouraged to work with an assistant in lectures and lab classes, as required, and may tape lectures or use alternative appropriate methods of recording the material. As a result of feedback from hard of hearing students in our course, the Department insists that all staff use microphones in all lecture theatres and laboratory classes, where the facilities are available as standard.

Currently, lecture material and handouts are self-assessed by the teaching staff. Course materials are expected to take into account visual impairment, such as the use of appropriate foreground/background colour and font size. On an individual basis, staff can contact the Disability Services for advice. The SHEFC leaflets downloadable from the Disability Service website (<http://www.teachability.strath.ac.uk/>) are very useful and one month in advance of the start of Semester, the academic Disability Contact will place an item in the SIPBS Weekly Newsletter, directing staff to these leaflets so that their course material can be improved.

For the next academic session, essential reading texts will also be identified and requests made to the Central Scanning Service to ensure that our texts are in a suitable format for the visually impaired. This will be possible as our new 20-credit class structure is now fully embedded and this was not possible previously due to staff teaching duties being moved around substantially and most teaching staff having to develop new lecture material. This has also meant changes in Class Coordinators and recommended textbooks getting changed. It is anticipated that the next academic session will not require anymore changes and that the staff teaching on these courses will be established.

The main barrier viewed by individual members of staff is the need to maintain anonymity. This can result in relevant discussions not taking place between members of staff to share good practices. To prevent this in the future, signed consent from the students will be obtained by the DDC to allow such discussions to take place. Training from the Disability Services to inform staff on how to correctly handle sensitive information is important and will be implemented in the future. Another barrier is the large class sizes (sometimes in excess of 400 students), therefore staff members may not be able to quickly and easily identify student for whom some form of adjustment is required. This difficulty can be overcome for certain common adjustments by incorporating the requirement as a general adjustment applied to all students. A good example of this is the concept of making lecture slides available to all students prior to a lecture. Currently all lecture slides are uploaded to our VLE, a few days before the

lecture is given. Additionally, in many classes, including all classes in the MPharm degree programme, full lecture notes for all classes are provided at the start of the academic session. By making class material available to all students in advance of the lecture it was believed that this would reduce the need to identify individual disabled students who have this requirement and also ensure that no individual is missed. Unfortunately, providing full lecture material to all students before the lecture does have a potential adverse effect of discouraging attendance, as the students know they do not need to attend lectures in order to get the lecture material. Nevertheless, the view of the department is that the educational advantages of this approach, for all students, outweigh the negative affects on attendance. Therefore, the department is looking to alternative ways to encourage students to attend. Examples of this include leaving blank spaces in the lecture notes, which can get filled in during the lecture and setting homework where the answers are given at the next lecture.

Another example where the generalised approach works is in case there are students present whose disability makes it difficult for them to read aloud or respond to unseen material. To avoid this, only information on a voluntary basis is requested by all students and no one is expected to answer direct questioning. When involved in group working activities, break out rooms are used if required for students where high noise levels are a distraction when they have to access auditory information, but this only applies if the student declares their disability to the teaching staff involved.

**Case Study 2:** A student prone to excessive and debilitating anxiety attacks when required to speak in public was unable to complete a class presentation. The student was asked to prepare the material under the same conditions as the rest of the class but was assessed through a private one-to-one interview/meeting with the member of academic staff running the class. The department determined that the same learning outcomes for the exercise were assessed through this alternative approach.

All Class Descriptors and course outlines are available a month in advance of the start of Semester 1, therefore students in years 2-4 have information related to core and additional texts if they wish. All students are provided with Handouts/Timetables on the first day of Semester 1, where each Year is met by the Year Coordinators and essential information is passed on. In the past, no emphasis was placed on disability issues, but as of the next academic session all Year Coordinators will include in their talks a standing item on disability and the support mechanisms in place within and outwith the department.

#### **4.1.5 Practical Classes**

A substantial proportion of our teaching of practical classes for undergraduates takes place at the Royal College laboratories. The nature of this building is such that laboratory access for disabled students is not always as good as would be expected. Building access issues are dealt with in consultation with Estates Management. However, it is recognised that there are some potential barriers for disabled students – for example wheel chair

users might not be able to work at our current height level benches. Should the need arise though, the Teaching Laboratory Technicians would be able to provide modified areas in order for work to be carried out safely and within easy access to fire exits.

Our undergraduate teaching laboratories are supervised by technical teaching staff, academic members of staff and postgraduate student demonstrators. All student demonstrators undergo a two day training session, which covers generic skills. Consideration will be given in the future to including training to demonstrate to students with special requirements. Together with the Disability Service a short presentation will be prepared to make the demonstrators aware of issues likely to be faced by disabled students and how they are required to help. This will also be made available to all staff teaching on practical classes.

**Case Study 3:** We had a student with severe visual and hearing impairments who wanted to experience working in the laboratory. A lot of discussion took place between the Year Co-ordinator, the Class Co-ordinator, the teaching technician, the student and Disability Services to accommodate the student in practical classes. Different approaches had to be taken to find one that was suitable; these included using videos and having a personal demonstrator to explain things. Trying different approaches *ad hoc* was in some ways frustrating for the student and placed significant demands on the teaching technicians to implement adjustments with short notice. It might have been better in retrospect to have had more time for individual teachers to modify and test their practical classes beforehand, rather than trying to accommodate the student during a teaching session.

Two important lessons were learnt from this case. Firstly, we now recognise the importance of having sufficient time to work with the student to develop appropriate adjustments. Secondly, it highlighted the importance of communication between the various parties involved in developing the teaching adjustment since part of our difficulties arose from individual members of academic and technical staff attempting to solve problems and develop solutions in isolation.

Most adjustments required to be made in practical classes are done in consultation with the Year Coordinator, the Practical Class Coordinator and the Teaching Laboratory Technician. Discussion also takes place with the Disability Service and the student where additional readjustments from our normal practice maybe required. The responsibility at the moment lies with the Practical Class Coordinator to speak to individual members of staff to modify their practical for an individual student if required. As with our lecture classes, the practical classes were also re-structured to fit in with the 20-credit framework, so new staff were asked to run practical classes that they had not designed.

For the 2009-2010 academic session, practical class coordinators have asked all staff to carefully review existing teaching material and to provide feedback for improvements. As with lectures, there is a conflict between maintaining anonymity and identifying the students with disabilities in a class. Many issues are easily resolved as the students tend

to work in pairs or groups, and so a disabled student may rely on the willing help of their partner(s). However, working in pairs in laboratory sessions is not without problems as exemplified in the following case study:

**Case Study 4:** The department was approached by a group of students expressing concern over them having to work in laboratory classes with a particular student who had a behavioural problem that they found disturbing. The department assessed that team-working was an integral part of the laboratory exercise. Therefore, rather than having the disabled individual working alone, following consultation with Disability Services, the issue was resolved by a combination of working group re-alignment and encouraging the concerned students to develop a greater understanding and tolerance of the needs and expectations of all their class colleagues. Without breaching the disabled student's right to confidence, the department was able to offer the other students the necessary guidance and support for them to feel able to continue working as expected.

SIPBS recognises that more can be done to review every practical class to ensure that they can be better designed for maximum disabled student access - or that modifications can be easily made should the need arise.

#### **4.1.6 Placements/Field Trips/Study Abroad**

In 2007, the department introduced its first undergraduate programme with a built-in placement element, the BSc (Hons) in Pharmacology with Industrial Placement. This four-year programme was developed and introduced in response to feedback from the biotech sector in Scotland who wished to see greater practical and industrial exposure in pharmacological degree programmes. To develop this experience, during the third year of the programme, students will be placed within an industrial research setting. The first students will enter their placements in January 2010 and we are currently in the process of establishing the placement opportunities for these students. In detailing placements with prospective placement providers, we remain cognisant of the University's "*Guidelines for staff arranging placements for disabled students*". Our DDC will play a key role, working with the course organiser, in ensuring the department meets all necessary requirements. We will be looking at placement arrangements made by other departments, universities and organisations to see how they support disabled students in placements.

Placements are also a critical part of the MPharm in Pharmacy and MSc Clinical Pharmacy programmes. These mostly take the form of half- or one-day visits to hospitals in and around central Scotland. All students are required to participate in these clinical placements and they are very important in giving students exposure to, and experience of, practice aspects of the profession. All placements in both degrees are currently within the NHS, and the department has a very well established procedure for liaising with the Service to ensure that it is aware of, and able to meet the needs of, any disabled student. As we extend the scope of clinical exposure within the MPharm degree programme we

plan to introduce more placement activities in the community pharmacy setting. We will be working with these new placement providers to ensure that all placements are fully compliant with the University's guidelines for placements for disabled students.

SIPBS Postgraduate MSc programmes make effective use of placement opportunities where available. Students on the Food Science & Microbiology and Food Biotechnology courses get project experience throughout the UK food industry including a chocolate and whisky manufacture and fish farming. The MSc in Pharmaceutical Analysis has strong links with pharmaceutical companies specialising in analysis and testing. Many of these placements are long-established and the department recognises the need for their review to ensure that there are no issues with respect to access for disabled students.

The department has engagement with the Socrates/Erasmus and IAESTE programmes. One member of staff co-ordinates all partnership arrangements and placement activities with the department. In the 2007-2008 academic session, the department had 8 active partnerships from the Erasmus programme; none of which were disabled, therefore we do not have any experience to report, but will investigate what other universities do to support their students. When staff visit host universities they will also seek out the disability services offered and investigate the provision for disabled people for future information.

#### **4.1.7 Exams and Assessment**

One of the major departmental requirements with respect to disabled student needs is the provision of special examination/assessment arrangements. All departmental special examinations arrangements are coordinated through our DDC. Working with the Class and Course coordinators, the DDC ensure that all appropriate examination arrangements are in place and that there is a coordinated management of all examination requirements. Examination adjustments typically include: special printed papers, special accommodation, IT support, timing arrangements and examination support personnel (invigilators, scribes and readers).

Sympathetic consideration is given to disabled students (and non-disabled students who have good reason) for requests for an extension of time when submitting assignments and sitting exams. The department also organises additional time/scribes/invigilators/private rooms/computer support during examinations for disabled students. All these adjustments are managed centrally by the DDC. Students are allowed to use spell checker/basic dictionaries if they wish and there is no penalty for spelling/grammatical errors whenever possible. This also helps students where English is not their first language.

One issue that arises with examinations is the conflict between the need to make suitable adjustment for a disabled student versus the requirement for anonymity within the examination process. The department has experienced particular difficulties in two respects:

- How can allowance be made for problems such as dyslexia without identifying the student and thus breaking anonymity?
- Where students with special examination requirements sit their examination in a separate location from the rest of the class, how does the department ensure that answers are not identifiable – e.g. because they are typed or in a different colour answer book etc?

In such circumstances, the department must consider carefully the conflicting requirements of anonymity and adjustment. Mostly, the need to make adjustment is considered the priority and the potential loss of anonymity is accepted as an unfortunate consequence. However, in a recent incident, additional scrutiny by using a second/third marker was employed successfully.

#### **4.1.8 Virtual Learning Environment**

An important pro-active development within the department to support disabled student access is the SPIDER VLE system. The VLE provides many supporting roles. It allows each user to customise the interface to their own needs in terms of font and text size, foreground and background colours. This was developed to allow users who have visual impairment that mean certain colour schemes are easier to read or view than others can completely tailor the site to their personal requirements.

This customisation is in addition to being able to select from 4 different 'navigation' options (classic, buttons, menus and text-only), of which the text only is designed to allow better accessibility for screen readers or low bandwidth access. The quiz tool has also been redesigned from using the shockwave plug-in to a pure HTML version, which is more accessible.

Another example of improvements to the VLE made to help students with visual impairments includes, when the PDP course was being developed for the biological students, a traffic light system (green/red) to show whether a task had been completed or not. It was pointed out that students with colour impairment would have difficulty distinguishing between the colours and a tick/cross system was developed instead.

The department is committed to a VLE that is maximally accessible for all disabled students and expects that any other University-wide platform would minimally provide the flexibility and customisation that we currently have access to through SPIDER. It is able to flexibly deliver teaching material to accommodate disabled students' needs as well as providing an important communications route.

#### **4.1.9 Research Laboratories**

Within research laboratories, disabled students are dealt with on an individual basis. Time and a greater understanding of issues surrounding students with disability has resulted in improvements in dealing with and allowing students into research laboratories as exemplified by the case studies below.

**Case Study 5:** Over 10 years ago, an undergraduate student who had been turned away from another university because of his hearing impairment was taken into one of our joint Honours programmes. He required a scribe and signer during practical classes and lectures. When it came to the student's final year project, the student decided that a literature based project would be more productive than a laboratory based project.

**Case Study 6:** Ten years later, a postgraduate student with hearing impairment was fully integrated into a research group. Consideration had to be made when explanations were given, or when the student's attention was required, or when the fire alarm was sounded to ensure the student was aware of potential danger. No major issues occurred [feedback given by the supervisor, other PGR students in the lab and the disabled student], and most members of the group benefited by responding and being more aware of disability issues in a positive way. Often, the other PGR students would voluntarily become note-takers and write down explanations, when they realised the student was becoming frustrated with not hearing all explanations. Only one problem occurred with the student outwith the department; the student was studying in the library, had turned off his hearing aid and did not hear the warning bell to announce the library was closing. The student subsequently got locked into the library and had to be rescued.

In August 2010 the department will move into a new building containing small group teaching rooms and research and teaching laboratories. All these have been designed and equipped to be maximally accessible for all the department's research and teaching activities. We will be able to transfer a proportion of our laboratory teaching currently located in the Royal College Building into the new teaching laboratories, substantially improving accessibility for disabled students.

## **4.2 Student Perspective**

Students are given information in the Year Handbook regarding the DDC. The students also know that the DDC operate an 'open door policy' and that they are encouraged to contact them in order that a knowledge base can be built on requirements. This also gives an excellent route for feedback and informs the department of how accessible our courses are so that readjustments can be made. Students are also contacted before every class test or degree examination to discuss their arrangements. Feedback is then requested after any class tests or degree examinations in both first and second semester via our VLE and this allows students who have not declared a disability to make comment. Each Class Co-ordinator has a meeting with teaching staff and produces a review of the course for that Semester. This information is fed back to the Year Co-ordinators and Heads of Teaching programmes. These reviews are available for staff and students on request. In particular students are told to make comment at any time to Class Co-ordinators so that improvements can be on-going. Students may also discuss issues with their Advisor of Study and Counsellor and feedback and help can be gained by this route. Students can

also provide feedback via their class representatives at the Student Staff Committee meetings although this is not generally a route that is used.

Specific comments received from students via the VLE are given below:

*“Speaking on behalf of a friend of mine, I think there should be a web link so the medically unfit can still “attend” the lectures, then to get round lazy students make the link active on spider to the students who have a medical certificate only”.*

*“I think that disabilities are slightly wrongly looked on, everyone in a way has some sort of disability, I have a friend who has a slight tremor and has difficulty in labs but also there are others such as myself who haven't been “diagnosed” with a disability, I have some trouble spelling at times and find English difficult, although my course is a scientific one, there is a high level of English needed, I think there should be some sort of support or tutorials to help out others like myself”.*

*“Does being slightly deaf count as disabled? It doesn't really affect me much but when in lectures I much prefer a microphone to be used as I can hear more clearly. I have to constantly ask my lab partner what is being said through labs as there is nothing to really project the voice of the lecturer who is taking the class and it's worse if they are a quiet talker in the first place”.*

*“I'm sure there are more than enough lifts and ramps within SIPBS for actual disabilities, although when changing from class to class the hallways may be a bit too cramped in places for wheelchair access. I'm thinking outside the labs just now when mentioning this in the linking bit to the James Weir.”*

**Case Study 7:** A postgraduate student with a hearing disability had as an undergraduate in a different university not been allowed to carry out any practical work but was made to watch while somebody else did the work which could then be written up as a final year thesis. The student was made to feel isolated, was constantly being shouted at by the supervisor and believes that he obtained a degree that was not a true reflection of his ability. The student had severe confidence issues and when in SIPBS doing a postgraduate degree was actively placed in a research group where the supervisor was known to be very patient, student friendly and able to spend a lot of time encouraging the student and building up his confidence. The student is very pleased with the opportunity provided by SIPBS.

A short questionnaire was put to this student who was very happy to provide information and it gives a snapshot of one person's experience in the department. It is replicated in Appendix 1 with his permission.

**5 Outline your department's plans for improving accessibility of teaching and assessment, with projected timescales. (Plans might include, for example, future staff development, preparation of guidance for staff, communications with professional bodies.)**

The current review of accessibility of teaching and assessment for disabled students has revealed a number of areas where the department could improve. These are outlined in brief below. It is planned that these will be considered by the Institute Management Group and Institute Teaching Committees early in the academic session 2009-2010. However, many of the suggested changes to departmental policy and procedure are relatively trivial and can be implemented with relatively little further discussion. The areas to be considered will include the following:

- ***Student Recruitment information/Academic Selection:*** We are in the process of improving our prospectus and publicity information used to recruit students to our courses. An SOP will be prepared for all our Academic Selectors and will include informing our DDC of potential numbers of applicants with disabilities as soon as possible. If the department has serious concerns that the disability will require special adjustments beyond our current practice, consultation will be made with the Disability Service prior to the applicant coming to SIPBS. We will establish clear guidelines for academic selectors for the process by which declared disabilities can be evaluated against our agreed competency standards.
- ***Staff development and guidance:*** A disability awareness session will be introduced into our annual teaching staff induction programme that is run for all newly appointed members of staff involved in any aspect of teaching within the department. One month in advance of Semester 1 staff will be reminded to ensure their course materials and lectures are accessible to disabled students.
- ***Making better use of the Central Scanning Service:*** essential reading texts will be collected and requests made to the CSS to ensure that our texts are in a suitable format for the visually impaired.
- ***Collation of statistics on disabled applicants:*** We will make better use of our centrally coordinated DDC approach for the collection and analysis of disabled student data.
- ***Improving communication to staff regarding student needs within the specific course they teach:*** Continued efforts will be made to encourage staff to use PEGASUS for checking the status of students in their own particular classes; although the department is committed to continuing its centrally managed approach which it finds works very well given the large size of the department and the very distributed nature of all our teaching activities.
- ***Monitoring that requests to staff to regard student needs are being adhered to:*** The quality assurance of any successful disability access plan depends on the

department being able to monitor the appropriate introduction of any teaching adjustments. The focus of this monitoring will be feedback from the disabled students themselves, via the DDC.

- ***Preparation of a departmental Handbook to show staff examples of good practice and teaching materials that could be prepared:*** The department is currently drafting a Handbook for all staff and the inclusion of appropriate material relating to our obligations to disabled students will be included.
- ***Consideration will be given to including training for demonstrators to students with special needs:*** We will incorporate a disability awareness session into our annual demonstrator staff training.
- ***Consideration will be given to examining all practical classes to ensure that they do not disadvantage students with disabilities e.g. colour reactions:*** We will remind all academic staff of the need to consider accessibility when reviewing their practical classes and we will assign a trained teaching technician to help staff.
- ***Compliance with accrediting bodies:*** The department will keep abreast of developments within the RPSGB's "Fitness to Practice" consultation that will provide new information relating to the competency standards for registering as a practice pharmacist.
- ***Review of placement activities with post-graduate (MSc) course:*** The department will undertake a review of its existing MSc placement activities, particularly within the Food Sciences and Pharmaceutical Analysis areas to ensure that all placements meet current needs and expectations with respect to disabled student access.

**6 What future arrangements will be in place in your department for reviewing and monitoring accessibility of teaching for disabled students? (Arrangements should involve disabled students.)**

- The Institute Management Group and Institute Teaching Committee will continue to review and monitor accessibility of teaching for disabled students. As part of the annual quality monitoring process, all class coordinators are expected to comment on issues arising in their class relating to accessibility of teaching for disabled students and these are considered by the Institute Teaching Committee and Institute Management Group for recommendation and implementation.
- Immediate implementation can be made of having a disabled student representative on the Student-Staff committees, as well as having one of the DDC currently on each committee. The department is also considering implementing a more formal feedback route for disabled student through the DDC in the form of a

small number of meetings in each academic session. These would involve all DDC (academic and administrative) and a selection of the department's disabled students.

- We are currently looking at improving our evaluation questionnaire for each class taught; therefore consideration will be given to including a question to monitor problems encountered by disabled students. As these evaluations are anonymous, this will enable those students who do not declare a disability to also participate. We will seek advice from appropriate disabled student groups in the development of these new evaluation questionnaires.
- The subject of disability is now a standing agenda item at General Departmental meetings, which all staff are expected to attend. This will be introduced at the start of the 2010 and will allow discussions regarding the feedback received from disabled students to take place and information regarding relevant training sessions to be disseminated. Staff development on specific impairments, as and when required, will also be organised to take place at these meetings.

## **7 Concluding Remarks**

The review has revealed that since formation, SIPBS has built on much of the good practice with respect to the Teaching Accessibility that existed in the five founding departments. However, the department recognises the need for continued development and this Teachability Review has usefully highlighted some of those issues with respect to managing the rights, needs and expectations of all disabled students that still need to be addressed.

## APPENDIX 1

### Postgraduate student experience:

***Q. Did you discuss your disability before you came to Strathclyde e.g. with the department or the Selector?***

A. I spoke to the Academic Selector and my hearing wasn't an issue and didn't come up in the conversation. I was more concerned about meeting the academic criteria and I was glad to hear that my chances of being accepted were good.

***Q. How did you find out about the course?***

A. I found out about it online at findamasters.com. I followed up and things happened very quickly from meeting the Academic Selector, to being accepted, to starting the course within a matter of 2-3 weeks.

***Q. Did you think the university/department was "disability-friendly" or did you foresee problems?***

A. I didn't foresee any problems because the course was strongly research based and required less lectures, tutorials and coursework than a normal masters, which was very appealing for me and a crucial factor in my decision to come here. Also at that point I would have expected all Scottish/British Universities to be disability friendly.

***Q. At what point did you declare a disability?***

A. I was given forms from the disability office in advance of starting the course and filled them in. I think I filled in Disability Allowance forms and sent them to Strathclyde and SAAS. I do not remember there being any problems with support at any point.

***Q. When you arrived at university how did you know to contact Disability Services?***

A. Again I don't remember the exact circumstance but I went to see them early on by appointment and found them to be very helpful and friendly throughout. They even found me a girlfriend! They didn't find me a house, a car and a job but I was still very happy with the service. I asked them if there were other deaf students interested in meeting up but I'm not sure if they did anything about this or if there was no reply, since there was only 7 in the whole university. My girlfriend who is profoundly deaf and Canadian said that she was pleasantly surprised that the Strathclyde Disability Office was so demonstrative in support of her and she said this wouldn't have happened in Canada.

***Q. Did you interact with the Departmental Disability Contacts? Did you know who they were? How did you find them?***

A. I spoke to 2 people at the Disability office, when I needed help with equipment and so on. I didn't speak to anyone within SIPBS about my disability and I wasn't aware of this option.

***Q. With respect to lectures, how did staff know you had a disability? Did you speak to them or assume somebody had told them beforehand?***

A. I had speed text operators - two women with laptops who typed up notes for me and sat at the back of the class as the clacking of keys was distracting for my fellow students. I may have told my lecturers but they never asked or had a problem and this was only for my Immunology lectures. I assume they had been informed by a circular email and they were all generally positive and friendly.

***Q. How did you find working in the lab - what problems did you encounter because of your disability? How was this addressed?***

A. The sterile cabinets in Tissue Culture were very noisy and difficult to work near but other than that I didn't have any problems with communication and I enjoyed it in the lab because it was generally easier to understand what was being said with less people around. People were very patient and happy to repeat, especially my project supervisor, so I felt very comfortable and happy from the beginning of my project.

***Q. Could your research supervisor have done anything differently to improve your experience; the approach used by her was to try and treat you like any other student – did this work for you?***

A. I think this raises an interesting point as to whether or not a deaf student would want to be treated like any other student or if they just want to get on with it. That's probably a good first question to ask them. I would also say that my supervisor didn't really put a foot wrong when I was there, her patience at the beginning made a big difference and I honestly don't think I would have enjoyed my Masters as much with a different supervisor.

***Q. What about the university in general - did you encounter any problems?***

A. Very few problems that I can remember. I was very disappointed at the lack of helpfulness from the library about the memory stick that was stolen, but in retrospect I can see that there was nothing they could do. I also wanted to play more rugby, but the club organisers were very poor at getting in touch so I must have played really badly in the only game I got to play or not passed the ball to the captain enough.

***Q. How do we compare with your experience at your previous university? What do we do right, what do we do wrong? How can we improve?***

A. At my previous university:

My Director of Studies told me that it wasn't important for me to hear what was said in lectures and that I should just go read books in the library instead. He also thought microphones and note-takers were a waste of time and money.

My project supervisor wouldn't let me continue with my project because I made one mistake and I had to do a paper thesis instead of a proper project because she refused to work with me again.

My Immunology tutor, department head and course organiser refused to speak up in tutorials and saw me as a major inconvenience to them.

A combination of all of the above made me very angry and I was close to quitting the course in my Honours year.

If not for coming to Strathclyde, I would have had a chip on my shoulder about the way I was treated in academia at my previous university. However, this may be because I was very fortunate with the staff and individuals I encountered. The way the MRes course is structured allowed me to achieve a grade based largely on my own research, practicals, hard work and merits rather than having to listen to a succession of lectures and tutorials and wasted time integrating my notes with my note-taker's notes and the handouts, something I found to be especially time consuming and counter productive to my learning. The research basis of this course has meant that my hearing problems are far less of an issue and I have been very grateful for my time at Strathclyde. A lot of my family have commented on how much happier and positive I have been since, so based on my personal experience I would recommend the Strathclyde MRes in Biomedicine to anyone.

VF/CBP  
4<sup>th</sup> August 2009

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