

# Supporting students with Asperger's Syndrome in the Physical Sciences

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**Are we losing intellectually able students unnecessarily? Asperger's Syndrome (AS) is part of the Autistic Spectrum, and students with AS can be academically able yet all too easily fail to reach their potential. Moreover, students with AS are attracted to the more logical subjects and therefore cluster around such areas as physics or astronomy. This project aims to avoid the frustration of seeing students with potential slip through the net. We aim to do this by seeking to produce a best practice resource pack for Physical Science departments so that they may best assist AS students.**

## Challenges Faced by Students with Asperger's Syndrome

An example of a situation that might be faced by lecturers is summarised in this edited extract from an email received by S. Pepper (Disabled Students' Co-ordinator):

'Also, we have one student who is demonstrating rather weird behaviour in classes. (He reads the newspaper, stands up, walks out of seminars and constantly mutters and plays with drinks cans. He seems pretty unwilling to communicate with us at all and when he does, his manner seems rude and abrupt.) We're wondering if there's a condition attached to him. Any thoughts?'

This is fairly representative of the issues faced by staff teaching students with Asperger's Syndrome (AS). Students with Asperger's Syndrome face many challenges in life, for example social skills which many take for granted do not come easily to AS students. Every student is different, yet an AS student might be focused, dedicated, intellectually able and still fail to complete a degree. It is often the small problems which grow to become insurmountable. Indeed many of the core themes of a physical science degree; laboratory work, group-work, open-ended questions, communication skills can present formidable challenges to AS students. This does *not* mean that an AS student cannot reach the levels of competency required by the degree programme. It does mean however that we should provide appropriate support as we would expect to do for any student with a physical disability. The problem is that the social difficulties faced by AS students are all too easy to ignore or dismiss as simply strange behaviour. For this reason AS students often struggle through university or worse still slip through the net and don't complete their degrees.

## Discovering What Works

Despite the challenges faced by departments with AS students, improvements can be made with only very slight changes to working practices. Over the last few years the School of Physics, Astronomy & Mathematics has sought to improve the position of our students with AS. S. Pepper leads the Faculty disability unit and has developed a model whereby a department has an AS 'academic point of contact' who acts as a communication bridge between a department and the support provided by the disability unit (comprehensive mentoring and study skills support). The reasoning is simple; disability units understand the needs of AS students, while departments know the needs of the programme – to help students successfully we need to combine both viewpoints. This 'academic point of contact' model is one example of a good idea that we would seek to promote to other physical science departments.

A frustration that has arisen from our experience in supporting AS students is the realisation that we need to continually develop our own solutions to help students. Inevitably, many departments will be experiencing similar situations with their AS students. There is a now real need for the collation of best practice ideas to avoid each department having to 'reinvent the wheel'.

## A Best Practice Resource for the Physical Sciences

To address this important issue, we intend to produce an AS 'best practice' resource pack for physical science departments in the UK. We will contact UK physical science departments to find out about their experience with AS students and successful support strategies that they have employed. We will also actively seek collaboration with bodies that support people with AS at a regional and national level to gauge the appropriateness of the resource pack.

We envisage that the resource pack will include:

- Background information on the issues faced by AS students in the physical sciences, including potential challenges such as project work, laboratory work, etc. We expect this part to be especially useful to heads of department and programme developers.
- Case studies of practical support structures and teaching methods from different departments which have improved the experience of AS students (e.g. the 'academic point of contact' model at the University of Hertfordshire)
- Case scenarios of the experiences of AS students on physical science programmes. These will highlight both the difficulties faced by the student, and any solutions that may have worked.
- Tailored 'Quick Guides' that can be used to quickly disseminate information to already busy members of staff. These would be produced as short pocket sized guides, which would offer background information and helpful advice. In particular we expect to produce 'Quick Guides' such as:
  - A Postgraduate demonstrator's guide to helping AS students in the Lab.
  - Departmental administrative staff guide to helping AS students.
  - A Head of Departments guide to helping AS students.
  - A lecturer's guide to helping AS students on your course, etc.

In other words, targeted guides for all members of staff in a department who deal with AS students. We expect that these guides will also be of use to staff supporting non-AS students facing similar issues.