

Aston University Engineering Academy

1 Lister Street, Birmingham, B7 4AG

Inspection dates 4–5 June 2014

Overall effectiveness	Previous inspection:	Not previously inspected	
	This inspection:	Good	2
Achievement of pupils	Good		2
Quality of teaching	Good		2
Behaviour and safety of pupils	Good		2
Leadership and management	Good		2

Summary of key findings for parents and pupils

This is a good school.

- Attainment is improving strongly as a result of the good progress students make.
- The academy has ensured there is no difference in the attainment of students eligible for pupil premium funding and those that are not.
- Teachers' expectations are high and therefore the large majority of students experience lessons that are challenging. Teaching is good.
- Lessons are strongly linked to the types of activity students are likely to encounter in the workplace, including substantial use of computer-based technology.
- Effective arrangements are made to ensure students are safe.
- Students participate in high quality work experience.
- All students benefit from participation in interesting enrichment activities that take place after the normal academy day.
- The very large majority of students behave well in lessons and around the academy.
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- Leaders, including the governing body, have accurately identified all the issues that need to be addressed in order to further improve.
- The sixth form is good. Students progress well across a range of study programmes.

It is not yet an outstanding school because

- Teaching assistants are not always used effectively, for instance to promote students' communication skills.
- At times, more-able students are not challenged sufficiently.
- The transition from secondary schools into Year 10 has not been entirely effective for all students, including a few with special educational needs.
- Not enough attention is given to the development of positive links with parents, including through the use of 'Parent View'.

Information about this inspection

- The inspectors observed 17 lessons and, in addition, a number of short visits were made to lessons. They held meetings with students and spoke to students in lessons, at break-times and lunchtimes.
- The inspectors scrutinised a range of documents, including the academy’s improvement plan, governing body minutes and a wide range of policies, including those designed to ensure that students are safe. They also examined the work in students’ books and a range of information about their progress.
- The inspectors met with teachers, senior leaders and three members of the governing body.
- The views of parents were considered through the 86 responses to a recent questionnaire that had been administered by the academy. The ‘Parent View’ website was not operating so the questionnaire contained in this website was sent to parents. Inspectors considered the 20 questionnaires that were returned and the more extensive comments provided by three parents.
- Inspectors also considered the views expressed in questionnaires returned by 38 members of staff.
- Telephone discussions were also held with the chair of the Baker Dearing Trust, a school improvement partner and the headteacher of the provider of alternative education.
- Inspectors considered the external reports produced following the regular visits by a Department for Education adviser.

Inspection team

Kevin Sheldrick, Lead inspector

Her Majesty’s Inspector

Victor Reid

Her Majesty’s Inspector

Rosemary Myers

Additional Inspector

Full report

Information about this school

- Aston University Engineering Academy opened as a University Technical College in September 2012. It occupies high quality purpose-built accommodation.
- In the first year students were accepted only into Years 10 and 12 from schools covering a wide geographical area. There are now students in all year groups. The academy operates an extended day Tuesday to Thursday.
- The academy is much smaller than the average-sized secondary school.
- The proportion of students from minority ethnic groups and the proportion who speak English as an additional language is well above the national average. Students come from a wide range of ethnic groups.
- The proportion of disabled students and those who have special educational needs at school action (students who need extra support with their learning) is above average. The proportion at school action plus, or who have a statement of special educational needs, is also above average.
- The proportion of students supported through the pupil premium is above the national average. This is additional government funding for pupils known to be eligible for free school meals, and those who are looked after.
- A few Key Stage 4 students access full-time learning at the St George's Opportunities Hub in Nechells, Birmingham.
- The academy has not been open long enough for students to take the examinations that are used to evaluate whether it has met the government's current floor standards, which set the minimum expectations for attainment and progress.

What does the school need to do to improve further?

- Improve teaching by:
 - ensuring more-able students are consistently challenged in all lessons
 - ensuring teaching assistants are used effectively in all lessons
 - giving more attention to developing students' speaking and listening skills.
- Improve the arrangements when students transfer from feeder secondary schools so adjustments can be made more quickly to provision, particularly for students with disabilities and special educational needs.
- Improve links with parents, including through the use of 'Parent View'.

Inspection judgements

The achievement of pupils is good

- Students are making good progress in all year groups and in virtually all subjects. As a result, they make good progress overall. Students enter the academy with attainment that is below average.
- As a result of staffing difficulties the progress students made during the first year the academy opened was patchy. The results in the examinations undertaken by Year 12 students in 2013 were below average. All of these students have since caught up and are now achieving well. Students currently in Year 12 are progressing well.
- During the second year of opening the progress students make has accelerated as a result of the much better teaching students are experiencing. Students' attainment is currently average in all year groups.
- In English and science lessons, students were observed to be making consistently good progress because teachers of these subjects ensure students work at a consistently rapid pace.
- The progress students make in mathematics lessons is less because students had previously experienced some weaker teaching in this subject. Students are now making better progress in mathematics lessons, largely as a result of the appointment of effective new staff that have strengthened the teaching. In addition, students have experienced extensive additional lessons and individual support during the academy's extended day. These arrangements are now enabling students to make good progress.
- In other subjects including work-related courses, over time, students are making good progress. These good rates of progress are because of the arrangements the academy makes that ensure students of different abilities focus on work that is matched to their different needs. This is particularly successful with lower and middle ability students.
- The progress all students make is enhanced by the links that are made to work place situations so students can see how their learning can be applied; for instance through students' regular visits to see the nearby redevelopment of New Street Station.
- On entering the academy there was a small gap in attainment between students supported by the pupil premium and the others. The academy's current assessment information indicates that this gap has been closed for students in Years 10 and 11. This improvement is evident in both English and mathematics and has been achieved because the academy's extended day has been used for additional teaching for these students.
- Students have positive attitudes to learning because they experience good teaching that links well to the work place.
- There has been no early entry to examinations.
- Disabled students and those who have special educational needs make good progress. These students benefit much from the academy's very effective use of assessment information so that staff have a clear understanding of the stages students reach before planning further work.
- The academy promotes equality so all groups of students, including the many different ethnic groups, make at least good progress. However, the academy recognises that it has not been

able to make suitable arrangements quickly enough to fully meet the needs of a very small minority of students, including a few with special educational needs. This is linked to weakness in the transfer arrangements that exist, such as the difficulties the academy has experienced obtaining information from its feeder secondary schools early enough.

- A few students are taught in alternative provision away from the academy site at the St George's Community Hub. This opportunity has served to fully re-engage students in their learning and in making informed choices about future work-related courses.
- The extensive use of computer tablets has resulted in students reading more often and widely. Students, particularly post 16, regularly undertake research around the topics they are studying. Very effective support from a highly skilled teaching assistant has very quickly resulted in notable improvements in reading, particularly for students that have special educational needs. The academy has recognised that some students would benefit from further support to improve their confidence when speaking.
- Students in engineering use mathematics well in practical lessons; for instance when comparing component dimensions and tolerances against specifications, or when using Fahrenheit to Celsius conversion tables to measure temperature differences in engineered components.
- More-able students do not always make as much progress as other students because opportunities are sometimes missed to highlight how they could achieve at the very highest level.

The quality of teaching

is good

- Accurate assessment information is regularly gathered and this information is presented very well so teachers are able to check on the progress their students are making. In most lessons this information is used well to ensure most students can concentrate on work that is well matched to their abilities.
- The teaching of English is effective because marking is used particularly well to help students improve their work. Teachers use a wide range of resources very well to inspire students. For instance 'visualiser' technology is used so the whole class can be involved in improving a piece of writing. Teachers also ensure students work at a rapid pace in this subject.
- The better teaching in mathematics is effective because the students are encouraged to make choices so they can concentrate on work that is challenging. In addition, links are often made to workplace situations. In a mathematics lesson on Pythagoras, for example, the teacher made this more interesting by linking this to the planning of a route for a boat trip. Students were encouraged to move as quickly as they could on to the more challenging questions.
- In other subjects and in the sixth form teaching is enhanced greatly through strong links to problems associated with real life; for instance in an engineering lesson students took responsibility for merging what they had learnt in physics, electrical and mechanical engineering to produce working solar cells in response to a brief from an energy company that is linked to the academy.
- The academy leaders have correctly identified that some of these links to the workplace do not always inspire students. The most effective links are to real problems; for instance a group of students really enjoyed working with Network Rail to solve a problem associated with the material used in laying railway tracks.

- Where learning is most effective the academy teachers adopt strategies to increase the pace of progress. For instance in a science lesson on global warming the teacher used a wider range of short, sharp, timed activities to ensure students had to work at a very high pace. Students were encouraged to work hard through praise when their efforts deserved this.
- Teachers change lessons in response to their assessments, and students are involved in evaluating the progress being made and deciding the appropriate next steps. Most marking identifies any improvements needed and there is evidence that students are responding to this.
- Lessons reinforce students' literacy skills reasonably well; for instance science teachers are promoting extended writing and many staff are providing opportunities for students to read in lessons and through homework. Students are given the opportunity to present their ideas; for instance through multimedia assemblies they perform to the rest of the academy. However, in some lessons, particularly in Key Stage 4, opportunities are missed to encourage students to speak and this limits the development of their communication skills.
- Where learning is less effective teaching assistants do not have sufficient impact because not enough attention has been given to their role in the class.
- Nearly all teachers carefully adjust lessons to meet the needs of disabled students and those with special educational needs, and some benefit greatly from the support provided by teaching assistants.
- In a few lessons more-able students are held back because work is pitched at middle ability students and insufficient attention is given to highlighting how students can attain the highest grades.
- Students' spiritual, moral, social and cultural development is strong. Students appreciate that they are taught about different religions and they welcome the opportunity they have to mix with Aston University students that are often from different backgrounds. Students understand right and wrong and are therefore quite critical of students who do not behave very well in lessons.
- There was great enthusiasm for the interesting and the wide choice of enrichment activities that all students experience. Students were amazed with the opportunities they had to engage with the cutting edge stem-cell research taking place in the University. This also stimulated discussions about the ethics of such research. Inspectors observed many lessons in which students worked well together in both small and large groups.

The behaviour and safety of pupils are good

- Students behaved well during the inspection. They look smart and treat their new building with respect. Students told inspectors that behaviour is generally good and only very occasionally is learning affected by off-task behaviour in lessons. The academy appears to be achieving its aim of being a 'mature and independent business-like environment'.
- Most staff and parents agree that the behaviour of students is good. Inspectors carefully considered the critical comments made by a minority of parents. It is the case that early in the year incidences of poor behaviour were more common but students and staff provided convincing evidence that behaviour has improved strongly.

- Students indicate that the new code of practice for behaviour is being implemented consistently by staff and is ensuring good behaviour. Students' awareness of right and wrong is an indicator of the success of the academy in effectively promoting students' moral development.
- Since the academy opened, attendance has improved and is now high for all groups of students.
- Students are developing positive attitudes to their work, largely as a result of an interesting and stimulating curriculum that emphasises work-place learning. Students talked passionately about the enrichment activities they undertake because 'we have lots of choice'.
- The large majority of students concentrate well in lessons and in assemblies. In some of the less effective lessons, pupils occasionally engage in off-task talk.
- Students indicate bullying is very rare. Students said that when any incidents occur they are dealt with quickly and effectively. Students know about the forms that bullying can take, including that which is prejudice-based. The new students that have joined the academy since it opened commented positively on how they had been made to feel welcome.
- Post-16 students in the sixth form appreciate the arrangements that have resulted in them having undergraduate mentors from Aston University. Year 10 students benefit from mentor support from post-16 students.
- The academy's work to keep students safe and secure is good. Records for behaviour, safeguarding and absence are well organised. Child protection incidents and contacts with external agencies are logged systematically and are reported.
- Students are encouraged to carefully evaluate risks when undertaking practical subjects or when participating in work-related activity.

The leadership and management are good

- The academy is working well with a wider range of partners to achieve its aim of ensuring students achieve well and develop the skills required by employers. Leaders are very approachable and have gained the enthusiastic support of almost all staff.
- Challenging targets have been adopted to reflect the high ambitions of the academy. Regular accurate assessments are being undertaken to identify quickly any students that are not making the progress needed to achieve these targets. Virtually all leaders are using the information about student progress well to evaluate the effectiveness of all aspects of provision. Staff have provided additional sessions, outside of normal lessons in response to any evidence that pupils are not making good progress. This strategy has helped ensure students' progress well despite some weakness in teaching in the first year.
- Leaders have improved the quality of teaching. There is a strong record of leaders challenging underperformance, particularly where it impacts most on student outcomes. In addition an effective approach to staff training has been established. This has allowed staff to share good practice and has led to an increase in effective teaching across the academy.
- Subject leaders and leaders of the sixth form also know the strengths and weaknesses related to their responsibilities, for instance the rates of progress of different groups of students. However, many are new to post and yet to fully prove their effectiveness. The leader of special educational needs has ensured the effective day-to-day management of this provision but has a limited

overview of its effectiveness; for instance the rates of progress of different groups of these students.

- Performance management is being used well to hold all staff, including teaching assistants, to account for the progress students make. Performance management is based on the challenging targets the academy has established for itself.
- The academy has strong links with local schools and has also received support from a school improvement partner, a Department of Education Advisor and the Chair of the Baker Dearing Trust. This support has been useful in ensuring the accuracy of the judgements senior leaders are making about the academy's effectiveness, particularly related to teaching.
- The academy's self-review is accurate and demonstrates that leaders understand the priorities that need to be addressed. The academy has developed robust plans to address the relative weaknesses. For instance plans are well advanced to improve the leadership of special educational needs, links with parents and the effectiveness of teaching assistants.
- Although leaders plan ahead and try to anticipate problems there have been a few difficulties; for instance, changes were needed to ensure the good behaviour of students and to better meet the needs of a few students with disabilities and special educational needs at the start of the second year.
- Leaders have recognised the need to improve the links with parents. Although the academy has surveyed parents' views, not enough is known about parental views of behaviour. Leaders have not used Ofsted's 'Parent View'. A minority of parents hold critical views of the academy that are mainly associated with the difficulties that occurred earlier this year.
- The school is taking appropriate steps to ensure that it uses its pupil premium funding effectively. This is very carefully monitored and staff are held to account for the progress made by eligible students.

■ **The governance of the school**

- Governors are largely from Aston University or from large Midlands based engineering companies. This is helping develop very useful links that are giving students access to high quality work placements
- Governors have been actively involved in discussions about the information they receive to check the academy's performance. This has greatly assisted senior leaders in producing succinct and clear summaries of the key assessment information and the quality of teaching
- Governors are clear about the role they play in ensuring that the academy achieves high standards and continues to improve. They have an accurate view of students' attainment and the progress that different groups of students make
- Governors undertake training to ensure that they have a detailed knowledge of the information related to the academy's performance
- The governing body has made appropriate arrangements for the use of pupil premium funding and is very well informed about how the money is used. It is holding leaders to account for ensuring that these students make better progress
- Governors are familiar with how teachers' performance is managed to improve their practice. They are scrupulous in ensuring only effective teaching is rewarded. They know, and support, how senior leaders are tackling any remaining underperformance in teaching. They have also tackled directly the underperformance of staff.

What inspection judgements mean

School		
Grade	Judgement	Description
Grade 1	Outstanding	An outstanding school is highly effective in delivering outcomes that provide exceptionally well for all its pupils' needs. This ensures that pupils are very well equipped for the next stage of their education, training or employment.
Grade 2	Good	A good school is effective in delivering outcomes that provide well for all its pupils' needs. Pupils are well prepared for the next stage of their education, training or employment.
Grade 3	Requires improvement	A school that requires improvement is not yet a good school, but it is not inadequate. This school will receive a full inspection within 24 months from the date of this inspection.
Grade 4	Inadequate	<p>A school that has serious weaknesses is inadequate overall and requires significant improvement but leadership and management are judged to be Grade 3 or better. This school will receive regular monitoring by Ofsted inspectors.</p> <p>A school that requires special measures is one where the school is failing to give its pupils an acceptable standard of education and the school's leaders, managers or governors have not demonstrated that they have the capacity to secure the necessary improvement in the school. This school will receive regular monitoring by Ofsted inspectors.</p>

School details

Unique reference number	138222
Local authority	Birmingham
Inspection number	426893

This inspection of the school was carried out under section 5 of the Education Act 2005.

Type of school	Secondary
School category	University technical college
Age range of pupils	14–19
Gender of pupils	Mixed
Gender of pupils in the sixth form	Mixed
Number of pupils on the school roll	286
Of which, number on roll in sixth form	149
Appropriate authority	The governing body
Principal	Lee Kilgour
Date of previous school inspection	Not previously inspected
Telephone number	0121 3800570
Email address	enquires@auca.co.uk

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