



Create your future

CREATE YOUR FUTURE

WE ARE

UNIVERSITY

ACADEMY OF

ENGINEERING

SOUTH BANK

“London South Bank University is delighted to sponsor the University Academy of Engineering South Bank. This Academy with purpose designed laboratories and engineering facilities offers outstanding learning opportunities for young people in Southwark and beyond, preparing them for tomorrow's advanced technology world”

Professor Dave Phoenix, OBE – Vice Chancellor



WELCOME

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The University Academy of Engineering is part of the South Bank Academies Multi Academy Trust, which aspires to create outstanding career opportunities for young people in South London through distinctive STEM education that also embraces creativity.

We recognise that secondary education is the most important stage that sets the career direction for young people. We therefore offer individualised learning opportunities depending on the aptitudes and aspirations of each of our students.

Our curriculum is distinctive and engages the learners through project based learning with support from our business and industry partners, promoting learning in a real world context. The Academy offers an inclusive curriculum and a learning environment and ethos that foster confidence and enterprise in our students, giving them a competitive advantage in their future careers.

The Academy is sponsored by London South Bank University and all the Academy's students are automatically Associate Students of the University with access to the University's library, high technology laboratories, workshops and sporting facilities.

I am confident that the high quality teaching & learning and personal development support at our Academy will

ensure all our students will be the most sought after by good universities and employers.

I invite you to review the prospectus and the Academy's website and warmly welcome you to visit the Academy.

Professor Rao Bhamidimarri
Chair of the Governing Body





WHY AN

ENGINEERING

ACADEMY?



That's a really good question! Engineering and STEM skills are increasingly sought after. Did you know that today almost every organisation relies on an employee with STEM knowledge, from technology to business management. In fact many business leaders started their education in STEM and engineering. In a recent CBI survey, UK employers reported that 43% had difficulties recruiting STEM skilled staff. Focusing education on STEM and engineering will enable our students to succeed in the real world, while contributing to the well-being of the society and economy.

But our Academy does not just focus on STEM. We place great emphasis on students becoming proficient in English and Mathematics, developing high-level literacy and mathematical skills so that they can fully access all of the curriculum and the skills for the specialisms. Our business partners and the University sponsor partners tell us that these are the key skills required for students to achieve and progress.

Our Academy prepares our students for the rapidly changing world and meet the expectations of 21st Century learning. Our curriculum is designed to nurture creativity and enterprise. It provides students with an integrated educational experience in Science, Design, Engineering, Work-related learning, Humanities, the Arts and Computer Science.

We create, develop and promote close relationships with local, national and international businesses and industry specialists. We encourage the active involvement of engineering practitioners, and develop industry relevant projects and problem-solving activities. Our London South Bank University sponsor's business, academic, industry and international connections ensure that we achieve this.

Our Academy enables a step change in both the learning and personal development of our students and makes sure that the aspirations and expectations of the community are strengthened and achieved.

DID YOU KNOW?

97%

OF SOUTHWARK PARENTS
WE SURVEYED THINK MORE GIRLS
SHOULD STUDY ENGINEERING.

DID YOU KNOW?

80%

OF THE 1.28 MILLION STEM
PROFESSIONALS NEEDED BY 2020
WILL WORK IN ENGINEERING
OCCUPATIONS.

CONNECTIONS

CREATIVITY

CHALLENGE

The University Academy of Engineering South Bank is an outstanding place of learning, specifically designed for the success and happiness of all students and staff. A vibrant community, that plays a significant part in the transformational change and regeneration in our area. This is underpinned by our commitment to excellence through:

OUR VISION & VALUES



CREATIVITY

Creativity is at the heart of all that we do:

- To ensure that we are unique and distinctive
- Generated through hands-on real world experiences
- Creating opportunities where others see challenges
- Fostering confidence and enterprise



CONNECTIONS

Our students are well connected:

- To London South Bank University, our business and industry partners, and local, national and global community
- To articulate the interactions between all aspects of learning
- To diverse groups in our community to enhance their learning experiences
- To secure excellent progression routes into higher education, apprenticeships and employment



CHALLENGE

The University Academy of Engineering South Bank is a place where we challenge all of our learners to excel:

- We challenge each other to realise our potential
- Using our inquiring minds to challenge and question status-quo
- Our partners set our university challenges for integrated learning
- We meet the challenges that we set ourselves by being taking risks, persevering, persisting and showing courage

WHAT IS STEM?

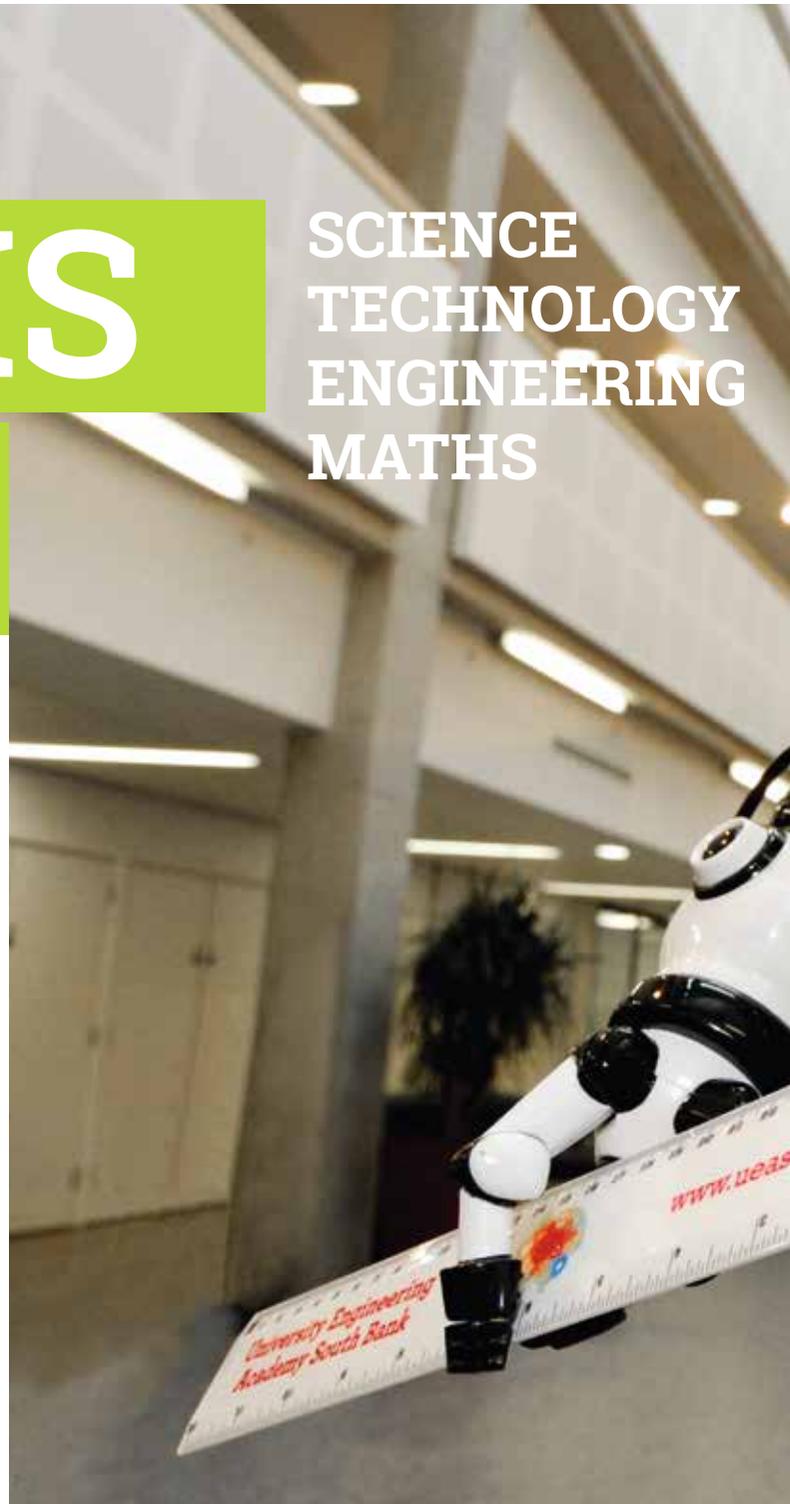
SCIENCE
TECHNOLOGY
ENGINEERING
MATHS

It is crucial that all young people, whatever their future career pathway, have the STEM knowledge and skills they need to be an informed citizen in our increasingly scientific and technological society.

STEM teaching helps young people recognise how the Science, Design & Technology, Computer Science, Engineering and Mathematics that they study at school or college can lead to rich and varied career pathways.

By reaching outside the classroom, our teachers, university and business partners collaborate across subjects, to enhance and enrich the school curriculum, make links with the world of work, and use varied contexts to help our students relate school STEM subjects with their real-world experience.

Effective and inspiring teachers, supported by our specialist university and business partners is vital to raising students' enjoyment, enthusiasm and achievement in STEM subjects.





DID YOU KNOW?



GRADUATES IN STEM SUBJECTS
CAN EXPECT TO RECEIVE
AMONGST THE HIGHEST SALARIES
OF ALL NEW RECRUITS.

CURRICULUM

KEY STAGE THREE:

YEARS 7 & 8

We know that moving on to a secondary school is a big step. Our Key Stage Three Curriculum has been specifically designed to build on the strengths of the primary model to aid transition between schools and ensure that our students make accelerated progress in Year 7 and 8.

Every student has a Tutor, who provide support by becoming their Learning Mentor taking responsibility for their academic progress, personal welfare and development as well as being the first point of contact for parents and carers.

Students have a core team of STEM teachers. English, Mathematics, Science and Humanities will all be taught by specialist subject teachers to help students develop and prepare for Key Stage Four. They also take part in Performing Arts, Design and Engineering, Physical Education, Humanities, Art and Design, Computer Science and learn a world language to give every student a truly inspirational and exciting experience.

DID YOU KNOW?

BETWEEN 2010 & 2020
ENGINEERING COMPANIES ARE
PROJECTED TO SEE

**2.74 MILLION
JOB OPENINGS**

The curriculum has a strong emphasis on communication, literacy and mathematical skills. Small group sizes ensures our students get the most out of all lessons. Our timetable is structured to include in-depth project based learning providing the opportunity to work with a wide range of university staff, students, business and engineering partners.

A Core Learning Skills programme ensures students are supported to develop independence and take responsibility for their learning, have respect for others and have the ability to work collaboratively in a range of contexts in and outside school. Our curriculum links the personal, social and learning skills young people need to develop to apply their knowledge and skills creatively in a business context. The Core Learning Skills element of the curriculum leads to an accredited Student Leadership Award.



A PROJECT BASED STEM CURRICULUM

Learning Areas	Context	Learning Skills
English	Science	Enterprise
Design & Engineering	Technology	Risk taking
Art & Design	Engineering	Independent learning skills
Physical Education	Maths	Teamwork
Humanities		Communication skills
World Language		Resilience
Computer Science		Perseverance
Performing Arts		Reflection & evaluation

Our class sizes & teacher/student ratios will be flexible and our excellent teachers will have the skills to respond swiftly to individual students' needs.



A young woman with blonde hair, wearing a grey shirt and a black safety vest, is working in a workshop. She is looking up and adjusting a large green industrial machine. The machine has various components, including a silver rod and a black handle. The background shows a well-lit workshop with other equipment and a ceiling with fluorescent lights.

CURRIC KEY STAGE FOUR YEARS 9–11

DID YOU KNOW?

OVER HALF OF THE LOCAL PARENTS WE SURVEYED THOUGHT THAT STUDYING AT UAE SOUTH BANK WOULD LEAD TO A WELL-PAID JOB



ULUM

R:

Our Key Stage Four curriculum prepares our students for the future; whether higher study or work-based learning. It enables our students to gain the national expectation of 8 x A* - C GCSEs including English and Maths as well as deeper learning experiences, such as field studies, the opportunity to apply their skills in a work environment, and international student exchanges.

Students continue to be supported by their tutor. In addition to the Engineering specialism, all students study the core curriculum subjects of Mathematics, English, Sciences (including Computer Science), Physical Education and personal and social education. There is also a wide selection of examination courses. Each student is carefully guided through when making these important choices. This portfolio provides them with an excellent set of qualifications.

The Academy offers high quality, vocational opportunities that have proven progression into a broad range of further qualifications or careers.

Our expert professional partners guide the development of the STEM specialist subjects to bring real life hands-on learning experiences into the classroom. They also take our students out into the University and workplace to ensure that their transition to KS5 and beyond is smooth and successful.

All students have an individualised programme. Students' learning is overseen by their tutor with supported self-study, which includes: distance learning, mentoring and opportunities for student leadership responsibilities. These additional achievements and experiences give them an 'edge' as they enter the competitive world of employment or higher education.



ENRICHMENT CURRICULUM PROGRAMME FOR EVERYONE

Our Enrichment Curriculum is a fundamental part of the learning experience for our students. It has been placed at the end of the Academy day to enable families to join us, supporting our Academy's aim to become the hub of community life.

Our exciting enrichment programme allows all students to have the opportunity to build their skills, confidence and independent learning strategies. They choose from a broad array of STEM related activities which are all underpinned by creativity, problem solving, work experience and enterprise skills. These sessions will be led by experienced mentors from business and industry, teachers and London South Bank University staff and student ambassadors. In addition, the Academy is designed to be a Regional Technical Centre for Formula One in Schools and will host a Young Engineers' Club to provide activities including participation in Big Bang Fair and Royal Society Summer Science Exhibition.

Key Stage Four students are expected to access at least two options from the Enrichment Curriculum and also have the opportunity to share in the leading of sessions for younger students as role models and mentors.

Students' families are able to take part in sessions which will include: ICT, cooking, language classes, chess, gardening, drama, singing and choir. We welcome members of the community to get involved, join in some of our community activities or help us to deliver something that you are passionate about as part of our enrichment programme.

UNIVERSITY CHALLENGE

CURRICULUM PARTNERSHIPS

YEAR 7 2014 /15

University Challenges, set and evaluated by our business and University partners, frame the STEM learning at Key Stages 3, 4 and 5. They are the vehicle for connected learning opportunities for staff and students. Every member of staff collaborates with our partners to drive one of the University Challenges modules each year.

Module	Module 1a	Module 1b	Module 2	Module 3	Module 4	Module 5	Module 6
Title	I'm an Engineer	LSBU F1 Challenge	Jaguar F1	UAESB Citizens of London	STEM inventions during war	Designing and making for our Community	Bloodhound
Outcome	Presentation for families	F1 in schools	Final Race and debrief.	London Day. Utilising London as a learning resource	Why war?' Debate as a result of research project.	Creation of spectator furniture.	Competition to design and make land-speed attempt car. Plus skype visit Africa to see the car race.
Partners introducing and evaluating the Challenge	London South Bank University	London South Bank University	London South Bank University	Transport for London	Imperial War Museum	Constellations	Bloodhound
Learning Area leading	Design & Engineering	Design & Engineering	Mathematics, Design & Engineering	Spanish & English	Science & Humanities	Physical Education	Design & Engineering, Computer Science

“UAE South Bank Academy is an outstanding place of education providing distinctive educational and career opportunities for young people in South London. Engineering in the broader STEM framework is key to the economic sustainable development and social well-being. We offer a unique learning curriculum and learning environment for the students to prepare themselves for emerging engineering and digital technology higher education and careers in partnership with business, industry and our community”

Professor Rao Bhamidimarri, Chair of the Governing Body

CONTACT US

University Academy of Engineering South Bank

Trafalgar Street, London SE17 2TP

www.uaesouthbank.org.uk

To request a visit or to chat to us about the Academy call us on 020 7277 3000 or email at info@uaesouthbank.org.uk

GETTING HERE:

Public Transport links are extremely frequent. If you are planning to come by car, please contact the Academy Reception first as parking onsite is restricted.

Nearest railway station

Elephant & Castle

Nearest tube station

Elephant & Castle

BY BUS:

Bus Routes: 12, 35, 40, 45, 68, 171, 176

(East Street, Walworth Road)

21, 53, 63, 353

(Old Kent Road)

42 & 343

(East Street)

