Northumbria University NEWCASTLE

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State-of-the-art facilities coming soon for STEM students

Science, Technology, Engineering and Mathematics (STEM) facilities at Northumbria are undergoing a stunning transformation this summer thanks to £6.7m investment.

Construction work is currently underway at Ellison Building at City Campus on refurbished building, laboratories and facilities which will introduce new cutting edge technology to the University and support the launch of new degree programmes, such as Automotive Engineering, Civil Engineering and Physics. Significant investments in new technology include a bespoke Engine

Test Cell facility, wind tunnel, scaled tutorial mock-ups of working automotive systems, 50-tonne test frame and actuator, scanning electron microscope (SEM) and improved 3D printing facilities.

The project, co-funded by the Higher Education Funding Council for England, will create and equip new laboratories to deliver new undergraduate and integrated Masters programmes in Automotive Engineering, Civil Engineering, Physics, Mathematics and Computer Science. The facilities will also enhance existing research and teaching activity for the University's current 3,500+ STEM students, while helping Northumbria develop even stronger collaborations with industry. The Executive Dean of Engineering and Environment, Professor Glen McHale, recently enjoyed a site visit of the construction works to see how work is progressing.

Professor McHale said: "I was delighted to visit the construction site recently to see the progress being made. This investment will enable Northumbria to complete its vision for a revitalised, comprehensive STEM offer. The refurbished facilities and new programmes will complement Northumbria's £3.3m, HEFCE co-funded, Think Physics initiative to improve progression to STEM by under-represented groups.

"It also demonstrates the University's ambition to become a national beacon for STEM education."

The building work is taking place in two stages, with the first phase completed in September 2015. This included the refurbishment of three laboratories, an improved anechoic chamber, the creation of an IT Hub and a new meeting space all in Ellison E block. The design has incorporated glazed partitions to maximise the use of natural light and to showcase the new laboratories and equipment.

The second phase due for completion in September 2016 include the refurbishment and redesign of a suite of laboratories and workshops on the ground floor of C and E block of Ellison Building. This includes the creation of a new Civil Engineering Geotechnics Laboratory and refurbishment of a Mechanical Engineering manufacturing cell. A new Civil Engineering Structures workshop is also being created with a large testing frame featuring a 50-tonne actuator to test large beams and an automotive test facility which includes a wind tunnel large enough to accommodate 25% scale model vehicles. There is also a bespoke engine test cell suite to allow testing and

teaching on multi-cylinder industrial engines. Along with cutting edge equipment to analyse exhaust gas emissions and fuel consumption. A new automotive laboratory is also being created.

There will be increased Rapid prototyping Makerspace, a new and improved 3D print facility and an improved student service area to streamline and enhance the student experience. A microscopy and material characteristics suite, featuring a new Scanning Electron Microscope and an Alicona infinite focus 3d microscope will also be created. Finally, there will also be improved wet lab facilities, incorporating fume cupboards.

Professor McHale added: “Early in the project brief it was clearly identified that realising project ambitions would not only require refurbishment and creation of space but also the procurement of new equipment.

“The project will significantly enhance facilities with new state of the art provisions and also offer an opportunity to introduce exciting new equipment to the University. This new equipment will support and enrich the undergraduate and integrated Masters programmes enabling Northumbria to deliver a first-class teaching and research experience.”

For more information about studying STEM courses at Northumbria, including new programmes such as Automotive Engineering, go to: www.northumbria.ac.uk/stem or sign up for one of our upcoming Open Days on 1 and 2 July 2016 by clicking here.

If you have a media enquiry please contact our Media and Communications team at media.communications@northumbria.ac.uk or call 0191 227 4571.

Contacts

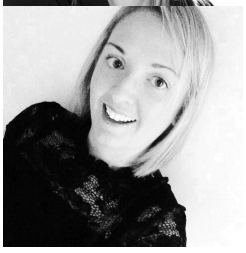
Rik Kendall
Press Contact
PR and Media Manager
Business and Law / Arts, Design & Social Sciences
rik.kendall@northumbria.ac.uk
07923 382339

Andrea Slowey
Press Contact
PR and Media Manager
Engineering and Environment / Health and Life Sciences
andrea.slowey@northumbria.ac.uk
07708 509436

Rachael Barwick
Press Contact
PR and Media Manager
rachael.barwick@northumbria.ac.uk
07377422415

James Fox
Press Contact
Student Communications Manager
james2.fox@northumbria.ac.uk

Kelly Elliott
Press Contact
PR and Media Officer
kelly2.elliott@northumbria.ac.uk



Gemma Brown
Press Contact
PR and Media Officer
gemma6.brown@northumbria.ac.uk