



HAVERING COLLEGE STEM ASSURED VALIDATION PANEL REPORT: MAY 2016

This report is based on the evidence expressed in Havering College's STEM Assured submission and the presentations made by its senior managers on 28 April 2016. The report also takes into account the sample feedback from employers and students.

The Validation Visiting panel included: Prof Sa'ad Medhat, Dr Sarah Peers and Mrs Michelle Medhat of the STEM Foundation.

HIGHLIGHTS:

Please refer to full the application and supporting documents:

- Ofsted identified that the college is very much a community college and rated it Good in January 2016
- College turnover is approximately £40M. 10,000 students
- 89% of Adult Learners and 96.1% of Apprentices gained employment
- Changes in demographics present a challenge (decline in 16-18 learners) for the college in the coming years up to 2020
- The college operates 18 Degrees / Foundation degrees. An additional 5 new programmes at degree level are being developed
- 82% of the college's commercial income is from STEM related disciplines
- An area review has taken place. Suggestion have been made toward a federation or a merger
- Innovation has been adopted as a central plank to drive transformational change.



COMMENDATIONS:

- The focus on STEM as a strategic differentiator for the whole college is highly commendable.
- Hi-SET STEM Hub is being used by students, industry partners and the community as an effective resource
- Employer focused development of educational programme (e.g. Ford's Higher Education pathways, Crossrail's practice Driver safety training, Queens Hospital's maternity assistants)
- The training of unemployed in rail engineering – 86% secured employment
- Every learner has received some form of work or work-related experience
- A specialist focus on transport and logistics. Highly developed relationships with the following:
 - Network Rail, Crossrail and TfL dominate the college's rail training provision. The college also leverages CPD opportunities for its lecturing staff with these organisations
 - Membership of the Chartered Institute of Logistics and Transport – unique in the FE sector
- The use of 'STEM Enhance' to develop lecturers' capabilities
- The international student development programme (e.g. Indonesian students)
- The use of e-portfolio to support workplace learners
- Extensive partnerships with universities and degree awarding institutions (e.g. University of London, Sheffield Hallam University, Open University)



INNOVATION COUNCIL'S RECOMMENDATIONS:

1. That the college considers developing its cross and interdisciplinary projects further so to build a better understanding of the interactions between STEM subjects and disciplines. Thematic college-wide projects might also be a possible vehicle.
2. That the college should pursue its aspiration for degree level apprenticeship programmes (e.g. construction, rail engineering, healthcare)
3. That the college ensures specific attention is given to the monitoring of performance and quality of provision within the subject area of Digital/IT. The college should increase its engagement with the ITC industry and update the content of its IT courses.
4. That the college considers integrating the Internet of Things into Health Care, Transportation and Logistics provision to reflect current developments in these sectors.
5. That the college enables better career management to enable more students to progress into the hard to fill STEM higher education provision.
6. That the college obtains better feedback from lecturers and students with respect to the use of learning technologies to enable improvement.
7. That the college encourages and supports the staff registration with professional bodies and learned societies to underpin the professional development of lecturers in technical and scientific disciplines.
8. That the college ensures that all STEM students have a good level of understanding of Project Management.
9. That the college establishes programmes that support enterprise development and entrepreneurship. For example, the engagement with Knowledge Transfer Partnerships could provide a platform for such development.
10. That the college develops a mechanism to capture the destination of learners, and supports the development of an Alumni programme.
11. That the college also puts into place a mechanism to gather information, both data and case studies, on the impact of their activities on destination universities and employers, in relation to STEM skills.
12. That the college continues to survey stakeholders, employers and learners to ensure STEM provision meets their needs and provides value for money by achieving quality outcomes.
13. That the college reappraises its open learning resources and libraries to address learner needs and evaluate currency and usefulness of available resources particularly in relation to STEM.
14. That the college reviews its communication processes with respect to enrolment and registration both with employers and students and puts in place an improvement plan.



Havering College has demonstrated a clear capability to stimulate and deliver innovative STEM provision across its value chain to enable student development, employability and support business growth acceleration in the region.

Guided by the Benchmarking Criteria set out by the Innovation Council¹, the STEM Assured Accreditation Panel agreed that the self-assessment, underpinned by the site visit and supporting evidence, demonstrated that Havering College is a forward-thinking institution that has embraced the ethos of STEM innovation in all its activities.

Therefore, **the Council recommends the conferment of the STEM Assured Standard on Havering College from 17 May 2016.**

¹ Members include C-Suite level executives from: BASF; Bosch; Britvic; BT Group; BUPA; Buro Happold; Cobham; Cobra UK; Costain; Crossrail; DHL; DuPont; EDF; EMC2; Extrinsic Global; GlaxoSmithKline; MARS; Microsoft; MITIE; National Grid; Plessey Semiconductors; Rolls Royce; Royal Mail Group; Tate & Lyle; Telefonica Europe; UCS; Unilever; Siemens; Areva; Centrica; TfL; National Physical Laboratory; Network Rail, Atkins; National Grid; Jaguar Land Rover; Lloyds; Arla Foods; Virgin Atlantic; Environment Agency; UK National Skills Academy Nuclear.



COMPLIANCE SCORING TABLE

Standard	College Grade	Grade Awarded by Panel
<p>1.1 Strategy & Planning Strategic and business planning reflects STEM priorities:</p> <ul style="list-style-type: none"> • STEM activities are reflected in organisational objectives such as income generation targets, knowledge and technology transfer and quality enhancement • Organisational strategy, business and action plans indicate commitment to high quality STEM provision 	FC	FC
<p>1.2 Strategy & Planning STEM sector developments and skills priorities inform planning for integrated, cross-curricular and industry relevant STEM provision:</p> <ul style="list-style-type: none"> • Robust mechanisms for gathering, reviewing and acting upon STEM sector information and stakeholder (employer, learner, staff) input and feedback are in place • Information generated through sector engagement is shared across the college and used to determine STEM priorities and support curriculum planning 	FC	FC
<p>2.1 Collaboration & Consultation Stakeholder engagement mechanisms are in place and used to ensure that STEM provision is tailored to meet current and emerging skills needs:</p> <ul style="list-style-type: none"> • Horizon scanning, trend monitoring, LMI analysis of future industry requirements and employer collaboration activities include STEM and STEM related sectors • Clear and effective mechanisms are used to identify and engage relevant national and local stakeholder groups in identifying current and emerging skills needs • There is sustained dialogue with STEM sector representative bodies (e.g. professional science and engineering bodies, Sector Skills Councils, employer bodies) and other agencies (e.g. universities and further education bodies, national STEM bodies, National Skills Academies) 	FC	FC



<p>2.2 Collaboration & Consultation Stakeholders contribute to planning industry-relevant STEM provision:</p> <ul style="list-style-type: none"> • STEM delivery addresses legislative, environmental compliance and standards recognised by awarding bodies and industry standards • Stakeholder input is used to inform planning for STEM provision 	FC	FC
<p>3.1 Innovation STEM provision is informed by emerging trends and innovations in education, STEM based industries and business planning:</p> <ul style="list-style-type: none"> • Creative thinking and innovative ideas are used in the access to, design, delivery and support of STEM provision and learner progression • STEM provision exposes learners to innovation models and techniques to support innovative practice as well as innovations in industry and the wider world 	FC	BP
<p>4.1 Design Employers, learners and staff are involved in enriching STEM curriculum and provision:</p> <ul style="list-style-type: none"> • Industry, STEM stakeholders and related organisations, and learner input and feedback is used to inform design of STEM provision • Design of content includes collaborative cross curricular elements, both within the STEM provision and across the all curriculum, with links to STEM stakeholders, industry and employers • STEM provision design takes into account different learner needs, appropriate modes of delivery, environments and technologies 	FC	FC



<p>5.1 Delivery STEM provision is resourced effectively:</p> <ul style="list-style-type: none"> • Staff competency is reviewed regularly and staff designing or delivering STEM provision are actively supported to address development needs which could include: <ul style="list-style-type: none"> ○ Changing university entry requirements, industry compliance and legislative requirements ○ Evolving industrial practices ○ Emerging technologies, and ○ Effective vocational, work-related and work-based pedagogy • Resources and learning materials used to support the delivery of STEM provision are appropriate and up-to-date with respect to university expectations, employer needs and STEM sector developments 	FC	FC
<p>5.2 Delivery STEM provision meets external quality assurance standards, contemporary norms and standards in STEM sectors:</p> <ul style="list-style-type: none"> • STEM provision, including IAG, is benchmarked against industry and educational sector norms, standards and best practice for outcomes for learners, quality and fitness for purpose • The standard of STEM provision is regularly reviewed in terms of meeting learner needs for a future in STEM and industry 	FC	FC



<p>6.1 Impact There are effective processes for reviewing the performance of STEM provision to support continuous improvement:</p> <ul style="list-style-type: none"> • Continuous improvement processes incorporate university, employer, student and other stakeholder feedback • The impact of STEM provision and related activities are measured and evaluated including value for money, return on investment and student achievement • Delivery, performance and quality outcomes for STEM provision is improving and that issues are identified and addressed 	<p>FC</p>	<p>FC</p>
<p>6.2 Impact STEM provision is recognised as having an impact on organisational performance, university requirements, industry needs and provides value for money, return on investment and successful outcomes for students:</p> <ul style="list-style-type: none"> • The school or college has received awards or recognition for excellence or innovative practice in the design and delivery of industry relevant STEM provision • STEM provision has had a significant impact upon employers, learners and other stakeholders in terms of achievement, progression, employment and performance • Influence and recognition amongst national and local stakeholder groups is improving in terms of promoting and delivering excellence in industry relevant STEM provision 	<p>FC</p>	<p>FC</p>