



Manifesto - November 2011

eSTEeM will promote innovation, scholarship and research in teaching, learning and engagement, and will enhance the involvement and influence of the OU in the external STEM environment. We are most likely to achieve our goals if we collaborate, develop our understanding, spread awareness and embrace entrepreneurial opportunity. Our activities will include the following.

- 1. Innovation and associated scholarship and research in learning and teaching
- 2. Innovation and associated scholarship and research in engagement
- 3. Dissemination and events
- 4. Conversations, awareness and presence
- 5. Revenue generation and entrepreneurship
- 6. Professional development
- 7. eSTEeM branding

The exact mix of activities will reflect the priorities and availabilities of each faculty that emerge during the unit planning process in early 2012.

1. Innovation and associated scholarship and research in L&T

This strand of work will continue to be organised on a project basis with active project management and mentoring/guidance as appropriate. Projects may be put forward by faculty management or by individual academics. A rolling portfolio of ~30 projects will be assembled and maintained. Each will have the potential to enhance the student experience or improve institutional effectiveness/efficiency.

Learning and teaching themes

- Online experimentation and observation.
- Assessment, particularly e-assessment.
- Mobile learning.
- E-learning technologies including social networking technologies
- Learning as a complex adaptive system

There will be a particular interest in exploration of learning and teaching issues for new markets, e.g. STEM education outside UK, and employment related programmes.

We will also support projects that explore general issues in L&T and distance education, e.g. quality, capacity building, progression, etc.

2. Innovation and associated scholarship and research in engagement.

This strand will be established in early 2012. It will be run using the same processes as the learning and teaching projects but, in this case, we will be looking for a smaller portfolio of 6-8 projects. We will seek projects within three thematic areas.

Engagement themes

- Engaging via digital technologies and tools
- Generating impact: engaging user communities with STEM research
- Policy formation, governance and decision making

There is a particular opportunity and need for projects focused on the REF impact process.

In some cases, eSTEeM staff will offer postgraduate research study opportunities. eSTEeM will support such work.

3. Dissemination, events

By early 2012, eSTEeM will have a fully developed Web presence that serves as both a portal into eSTEeM resources and a focus of the eSTEeM community.

We will support project leaders in dissemination of the outputs through journals, and conference attendance.

We will publish a quarterly newsletters, as well as intermittent reports, etc.

eSTEeM will run a range of dissemination events, including:

- internal colloquia and workshops
- hosted external colloquia and workshops
- an annual internal focused conference
- selected national/international conferences.

We will investigate with external partners, notably the HE STEM Centre, the launch of an L&T journal for STEM higher education teachers and the establishment of an ongoing virtual STEM Scholarship community that is hosted by eSTEeM.

We will also seek to establish eSTEeM International as a network that links together the international T&L partners of STEM academics. This network will be sustained by whole community virtual events.

4. Conversations, awareness and presence

eSTEeM will foster internal and external conversations with the intention of building joint awareness and enhancing our presence. We will focus on two areas;

Education for Employment We will build on our existing contacts with Sector Skills Councils (particularly SEMTA), Professional Bodies, HE STEM agencies etc. We will explore how we can align our teaching, learning and assessment methodologies with workplace relevant standards with the objective of making the benefits of OU STEM

study more evident to all stakeholders. We will seek pilot projects that will enable us to build internal capabilities and experience.

International STEM education We will promote conversations about international markets, associated teaching and learning models, and scholarship opportunities. This work will be carried out in close collaboration with the Business Development Unit and the International Development Office.

In each case, we expect to establish greater external prominence and presence and produce ideas for project-based innovation and scholarship.

We will work closely with the Open Media Unit to identify opportunities for STEM output that links to and promotes mainstream programmes.

Our aim is to become a trusted partner within and outside the Open University.

5. Revenue Generation and Entrepreneurship

eSTEeM will both lead and seek involvement in making grant funding applications to Research Councils, JISC, Charities, HEA, EU etc. Our rate of application in both volume and value, will match or exceed norms for research active staff in the two faculties (pro-rata). eSTEeM is particularly well placed to collaborate with internal and external partners in making applications.

eSTEeM's links with business development will be strong in both faculties and, therefore, where necessary, eSTEeM can provide a locus and academic home for entrepreneurial activity. Examples are:

- Spin out of e-learning resources, e.g. virtual microscope
- CPD packages, e.g. in distance teaching.
- STEM input into the Freemium offer.
- STEM L&T related consultancies.

There is no assumption that all such activity will flow through eSTEeM. It will be a matter of identifying where there is advantage in so doing.

6. Professional Development

eSTEeM should comprise a community that is mutually supportive. We will augment informal support with structured opportunities for colleagues to develop their scholarship skills. IET is already committed to providing structured support in the development of the scholarship of learning and teaching skills: we will work closely with them.

eSTEeM will develop proposals for STEM-focused formal professional development for both our internal and external markets. Subject to business appraisal, we will develop a short online CPD module that introduces distance e-learning. This will be a contribution to meeting anticipated requirements for accredited HE Teacher Training and will be available to external partners, for a suitable fee.

7. eSTEeM branding

Our experience over the last year has shown that eSTEeM can add value, both real and perceived, to a range of academic activities. An example is cross faculty work promoting widening participation. Academics see eSTEeM as providing a label that will enhance their impact and promote interest in their work. We will welcome such synergistic links.

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03/11/2011