

E-Learning Strategy 2012–2016

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INTRODUCTION

Background and context

The Institute of Cancer Research's e-learning strategy elaborates on relevant goals in the ICR's Learning Teaching and Assessment Strategy 2012–16, and outlines how we intend to use technology to support the work of the ICR.

Scope

In this document, 'e-learning' is intended to cover both online applications and technological interventions that deliver or support the education of students and staff.

Why e-learning?

The ICR is based both in Chelsea and in Sutton, meaning either that face-to-face courses must be run on both sites, or that attendees must travel away from their usual place of work or study. The demands of laboratory and clinical work also make it hard for many staff and students to attend face-to-face training courses at scheduled times.

Clearly some forms of training – such as fire safety courses – must be run in person. However by using e-learning for courses where it is feasible, students and staff can take part at a time convenient to them, pacing themselves so as to spend more time on topics that are particularly relevant to their work. As well as being convenient for attendees, e-learning is also efficient in these circumstances. For the courses provided during the induction of new starters, running courses online saves the ICR £27 000 per year in trainer fees alone and limits demand on space, which is scarce on both sites.

Additionally, students undertaking the MSc in Oncology are full-time health service clinicians, many of whom travel long distances to reach the ICR's teaching rooms. Interaction with their professional peers is one of the course's key appeals. By using

online resources to provide fact-based tuition and administrative support, students can draw the most benefit from the one day a week that they meet in person.

Teams involved with e-learning

Several teams at the ICR are involved with the development and delivery of e-learning. These include the small dedicated e-learning team in Academic Services, as well as staff in Registry, the Library, Learning & Development, Information Technology, and Facilities. Members of these teams, together with representatives of faculty, students, postdocs and The Royal Marsden NHS Foundation Trust form the ICR's E-Learning Group. This steering group meets three times a year, and oversees progress against this e-learning strategy.

ACHIEVEMENTS

The ICR's previous e-learning strategy was approved in late 2009. This strategy builds on achievements from over the past two years, including the following.

- The transition of the Perspectives in Oncology cancer science website to a content-managed platform, to allow modules to be updated on an ad hoc basis.
- Production of new Perspectives in Oncology modules to teach students about structural biology and experimental therapeutics.
- The development of an innovative platform (Lab Book) for delivering transferable skills training at time-appropriate points throughout students' research degrees.
- The introduction of an e-voting system to encourage debate in the MSc course. This is now being extended to other contexts in the ICR.
- The resale of generic Learning & Development training modules to other institutions.
- The feed of student training data from the Online Training Tracker into iProgress, the new research student progression system.
- Adapting existing applications to enable their use by students and staff at the RMH.
- The introduction of utilities to monitor the use of e-learning websites, for the purposes of evaluation and equality monitoring.
- The transition of the ICR's taught-course virtual learning environment from the commercial WebCT platform to the open-source Moodle platform, to allow for future development and customisation.
- Use of Perspectives in Oncology tumour biology and cell signalling modules, to address an identified shortfall in the knowledge of students undertaking the MSc in Oncology.
- Recording internal podcasts of distinguished lectures, and dissemination of these via iSpace.

ISSUES FOR DEVELOPMENT

The introduction of several new resources has led to a fragmentation of systems. In order to make most benefit from the new technologies provided, it will be necessary in the current period to consolidate and integrate our provision to staff and students.

- Students and staff are required to register on many e-learning systems (such as Perspectives in Oncology, Lab Book and cancer.ed) at the point of first use. In the case of the Online Training Tracker, whilst registration is not required, users do not appear in reports or data feeds until their first login.
- Those systems that require independent registration, and other systems such as EZproxy and ICR Googlemail (for MSc students) do not currently make use of standard ICR usernames and passwords for authentication, and instead provide their own login routines.
- Data relating to students' progression is currently scattered across a number of sources, such as iProgress, Lab Book, and Perspectives in Oncology. Any systems relating to student progression should share their data with iProgress, so that users need consult only a single source.
- Other systems would also benefit from greater data sharing – for example allowing data exchange between Library Theses Office records and the Student Record System and iProgress.
- It is necessary for students and staff to use a number of different online systems in the course of their work, and links to these can be hard to find.
- Some systems (e.g. iSpace and the Online Training Tracker) do not currently permit off-site access.
- Taught course students do not have access to core ICR information systems such as iSpace. Information from the intranet should be pulled into the virtual learning environment where appropriate, in order to foster an atmosphere of collaboration and unity.
- E-learning systems are, by their nature, liable to become out-dated as technologies develop. Although it is not necessarily a good use of resources to keep all e-learning projects up-to-date with current trends, we should regularly review whether the form of delivery is appropriate for achieving intended learning outcomes.

OBJECTIVES

The ICR's objectives for e-learning in the period 2012-16 are to –

1. strengthen the existing foundations for successful e-learning at the ICR;
2. deliver mandatory and supplementary training to instil a culture of awareness and responsibility within the ICR;
3. provide resources that foster effective collaboration through a common understanding of scientific language and concepts;
4. support early career researchers in becoming outstanding scientists;

5. continue to explore innovative ways of supporting learning, to complement face-to-face courses and activities.

These objectives are considered in more detail below.

1. Strengthen the existing foundations for successful e-learning at the ICR

Using e-learning allows the ICR to deliver on-demand training at a time and place that is convenient to its students and staff. In order to be successful in this aim, the training should be –

- accessible and appropriate for all users regardless of their age, gender, race, disability, religious beliefs or sexual orientation;
- suitable for the hardware, software and speed of network connection that is available to its users;
- available in the location (home, office, mobile) where it is most appropriate for the learning to take place, and easy to find and access from this location;
- intuitive to use, with on-demand training available to those who need it.

In the period covered by this strategy, we will build upon these basic requirements, and additionally ensure that

- e-learning projects use common authentication credentials;
- relevant user data is shared between systems, minimising the need to log into multiple resources;
- there is a single portal for accessing taught-course student resources.

2. Deliver mandatory and supplementary training to instil a culture of awareness and responsibility within the ICR

All new students and staff are required to complete a suite of mandatory training when they join the ICR, and additional training is offered throughout the year. When developing these courses, we will ensure that –

- the use of online modules is considered when the course content is mandatory, time-dependent, high-volume, highly factual, or certificated;
- where suitable training is available elsewhere, we will adapt or signpost this existing content as appropriate;
- if required training is not available externally, this will be developed in-house or out-sourced to contractors or collaborators;
- new courses are constructed to be applicable to as wide an audience of ICR and RMH scientists as possible – e.g. by ensuring that post-doctoral researchers may benefit from student resources where appropriate;
- where the ICR develops generic training materials that are not specifically related to the field of cancer research, we will proactively seek to resell these to other organisations, in order to generate income for the ICR.

3. Provide resources that foster effective collaboration through a common understanding of scientific language and concepts

ICR scientists come from a diverse range of academic backgrounds. In order to help students and staff flourish in our multi-disciplinary environment, we will continue to provide resources that give an introduction to the research carried out at ICR. In particular, over the coming period, we will –

- make available e-learning resources to support strategic collaborations and clinical partnerships, such as with The Royal Marsden NHS Foundation Trust and with the Mount Vernon Cancer Centre;
- implement technologies such as lecture capture to increase the long-term utility and reach of lectures and seminars that take place at the ICR;
- ensure that our educational materials are updated as necessary to reflect the current research focus of the organisation;
- make use of principles of adaptive teaching, and in particular the use of formative assessment, in the development of new educational support materials.

4. Support early career researchers in becoming outstanding scientists

Alongside subject-specific training, the ICR will continue to provide technologies that support scientists in their work, in particular using technology to provide –

- opportunities for ICR and RMH scientists and clinicians to discuss and share research ideas and methods;
- provision of off-site access to all electronic resources held by the Library & Information Service;
- transferable skills guidance at the time of need, geared to specific ICR activity, and delivered to research students through the 'Lab Book' website;
- the ability for students to record and monitor their acquisition and demonstration of transferable skills.

5. Continue to explore innovative ways of supporting learning, to complement face-to-face courses and activities

The approaches that underpin e-learning projects change in response to advances in technology and pedagogical understanding. With this in mind, we will –

- regularly evaluate the content and style of delivery of existing projects, in order to determine whether these remain fit for purpose;
- seek feedback and respond to the needs of students and staff, tailoring resources to the specific needs of the ICR user community;
- maximise the educational benefit available to taught course students, by offering opportunities for accessing relevant factual material whilst offsite, to enable more interactive face-to-face sessions;

- explore the facility for online submission of assessed material for taught courses;
- continue to monitor initiatives at other educational and research institutions, collaborating on projects or adapting existing technologies where appropriate;
- investigate the use of shared services, such as the national initiatives provided by JISC and the British Library.