



## Module title and code

Embedding Learning Technologies

ME/ED501

## Module level and number of points credit

30 credits at Masters level

## Module leader

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## Rationale

The University's mission statement **Towards 2000: moving forward our approaches to learning** states that *'the rate and range of change in higher education over the past few years have been such that the pressure on staff to change not only what they teach but also the way in which they teach has been unprecedented'*. Embedding Learning Technologies is designed to help staff take a critical and scholarly approach to changing *'the way in which they teach'*. Beginning with a review of learning technology research and current practice, the course will guide participants through a curriculum development project designed to integrate appropriate learning technology into a current module. Participants will build a portfolio which evidences their approach to research, planning, implementation and evaluation and shows critical reflection on the development process. As part of this portfolio they will present a substantial case study, evaluation report or similar paper suitable for publication in a peer-reviewed academic journal. This requirement is in recognition of the cutting-edge nature of the work which will be undertaken and of its intrinsic significance to the wider academic community.

The programme has a clear role to play in the current Student Centred Learning Initiative, providing staff with the pedagogical understanding and critical skills they need to deploy C&IT effectively for student learning. For graduates of the LTHE course and experienced staff seeking CPD opportunities it will offer an exciting specialist route to further academic and professional recognition.

## Target group

- Graduates of the LTHE programme looking to gain further credits towards an MEd and/or to pursue an interest in C&IT.
- Established lecturers who see learning technology as an interesting specialism.
- Academic staff and learning professionals already experienced at embedding C&IT who are seeking an academic/conceptual framework to contextualise their practice.
- Educational innovators looking to enhance their expertise in a new area of curriculum development.
- Learning professionals including library, technical and developmental staff looking to gain a relevant educational qualification.

## Learning objectives

The overall objectives for the module are:

- to develop reflective practitioners with their own professional values and goals.
- to foster a research-based approach to curriculum development with reference to critical and theoretical frameworks.
- to empower participants to act as change agents in their own local context, working in collaboration with colleagues.
- to enable participants to integrate communication and information technologies effectively into the curriculum
- to encourage participants to undertake critical evaluation and scholarly publication of their work.

Participants successfully completing this module will:

- be aware of relevant research and practice in learning technology and be able to critically review and contextualise this literature;
- be able to analyse the opportunities and constraints in using C&IT in a range of learning situations;
- be able to design and implement a curriculum development strategy for integrating appropriate C&IT;
- be able to apply a range of evaluation methodologies appropriately;
- be confident in publishing and disseminating their work to a relevant academic community;
- be accustomed to reflect critically on their own practice and be able to review, plan and undertake appropriate actions related to their own continuing professional development.

## Format and teaching methods

The module will require participants to take a student-centred approach to the embedding of learning technologies and the teaching methods adopted by the team will model this approach. The focus on a curriculum development project naturally encourages independent and experiential learning, and the flexibility inherent in the elective programme will help to ensure responsiveness to participants' individual learning needs. Workshop sessions will include a range of different methods including presentations, syndicate group work and individual activities. Sessions will be highly participative with an emphasis on valuing participants' own experience and responding to the issues they wish to raise. The directed study tasks will relate closely to the learning outcomes and will be designed to encourage critical reflection. Each session will be made available online to allow flexible access to staff remote from Plymouth or who have other commitments. These online tutorials will be integrated with face-to-face sessions through use of FirstClass, a computer conferencing system which allows asynchronous text-based communication on discrete topics.

## Content

The module will draw upon general theories of student learning at HE level and a range of conceptual frameworks for embedding technology into the higher curriculum. The compulsory programme will follow a curriculum development cycle and will cover the concepts and methodologies relevant at each stage, with structured activities to help participants reflect on their work. It is anticipated that this will include elements of: educational and andragogical theory; media theory and communications practice; sociology and psychology of technology; instructional design; philosophy and organisational models of higher education; current developments in learning technology. An elective programme will enhance understanding of a range of specific emergent technologies in an educational context. Both programmes will be negotiated to take account of participants' interests and needs and will evolve over time to take account of relevant technological and educational developments.

## Directed study

Participants will be required to undertake a variety of directed and negotiated tasks between attended sessions. Tasks will include:

- Suggested reading prior to sessions
- Online literature and reference search
- Devising a new learning activity or programme
- Considering and justifying a particular research approach
- Completion of a learning log or critical incident analysis
- Contribution to a computer conference on a relevant topic
- SWOT analysis of technologies in a specific educational context
- Evaluation strategy with rationale for methodology chosen

## Assessment

Participants will undertake one of the five PGDip Assessment Tasks which will be assessed in accordance with the programme regulations. Example titles which might be produced are:

### 1. Critical review of a body of knowledge

*A review of computer-assisted assessment in Biology. This paper examines a number of issues for the successful implementation of assessment software as reported in the learning technology literature. These issues are explored in practice through an analysis of the use of computer-based formative assessment tests in a first-year biology module.*

*A Conversation Framework for the design of videoconference-based courses. Diana Laurillard's conversation framework for the integration of technologies into the higher curriculum is reviewed through the design of a professional course in social work and social policy, delivered in part through the medium of video conferencing.*

### 2. Data collection and analysis

*A comparison of student-tutor interactions in computer-mediated and face-to-face language tutorials. We analyse the length and number of students' interactions with the tutor during a traditional language tutorial and a computer-mediated tutorial, both involving the same undergraduate student group. Significant differences are reported in the quantity of material produced and in the equality of contribution within the student group.*

*The first-year student experience of online skills assessment. Induction students are tested for their beliefs about learning, their beliefs about their own learning skills and their attitudes to computer assisted learning before and after administration of an online skills diagnosis package.*

### 3. Developing practice through a project

*Promoting student groupwork through collaborative online publishing. This paper describes the introduction of collaborative publishing projects to a third-year technology module previously taught by lecture and seminar alone. The outcomes are evaluated against a range of student learning objectives and a number of conclusions are drawn about the effect of online collaboration on student motivation and performance.*

*Building a digital architecture library: a guide for tutors and librarians. This guide describes the process of researching, planning and designing a library of digital images and other resources for use by lecturers and students on undergraduate courses in architecture. The recommendations are based on the experience of the author, a subject librarian in a Faculty of the Built Environment.*

### 4. Reflecting on practice

*Brave New World: a report from the digital frontier. Providing educational materials online has been promoted to lecturers as a way of saving time, extending access and encouraging students to become more independent in their learning. This report looks at one lecturer's experience of using the world wide web and suggests that we modify our expectations.*

*Off-the-shelf or build-your own? The pros and cons of psychology CAL. Off-the-shelf computer-assisted learning packages or courseware has been criticised for lack of flexibility and difficulty of integration into curricula. The alternative – designing and*

*building applications – demands huge investment of time and resources. This paper reflects on the experience of both approaches and provides a check-list to help lecturers determine which approach will work for them.*

## 5. Making an argument

*Out of sight, out of mind: some limitations of an online learning environment. The experience of computer conferencing can be highly rewarding for students isolated by distance from their tutors and peers, or it can be deeply disappointing where students lack self-organisation and motivation. This paper argues that the problem lies not with the technology but with the quality of student induction and facilitation.*

*A social anthropological perspective on a virtual learning community. Social anthropology has evolved from the study of so-called 'traditional' communities, but the same tools can be brought to bear on the modern community of an online graduate seminar.*

## Date of implementation

1 September 1999

## Bibliography

### Key Reading

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### Selected other texts

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Daniels J (1998) *Mega-universities and Knowledge Media* (second edition), London, Kogan Page

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## Web site

<http://sh.plym.ac.uk/eds/elt/>