Learning Outcomes and Information Literacy

SCONUL

Society of College, National and University Libraries

Learning Outcomes and Information Literacy

Information Literacy continues to be an important area in student learning and this SCONUL publication approaches the area through the development of a range of case-studies which should prove useful to HEIs and staff. The Higher Education Academy is pleased to sponsor the production of this publication.

Contents

Preface

The Society of College, National and University Librarians (SCONUL) has a mission to: 'promote excellence in library services in higher education and national libraries across the UK and Ireland'. Including membership from all universities and most Higher Education Colleges, it works in many areas. Most of this work is carried out in Advisory Committees, each with a focus on a particular theme.

The SCONUL Advisory Committee on information literacy (ACIL) has been actively involved in raising the profile of information literacy (the new 'user education') in the higher education sector since 1997. From the initial creation of a model defining the stages of handling information, now known as the 'Seven Pillars', the Committee has worked on various aspects of integrating information literacy into the university curriculum. The model is explained in a Briefing Paper *Information skills in higher education: a position paper* (1999), available from the SCONUL web site (**http://www.sconul.ac.uk/**), and the Information Literacy section of the site provides links to papers and conference presentations on many areas of interest, including the measurement and impact of information literacy, the link with key skills, the relationship with subject disciplines, and the delivery of information literacy online. The Committee also communicates with international organisations working in this area, and in the UK liaises closely with the Joint Information Systems Committee (JISC) and the Chartered Institute of Library and Information Professionals (CILIP). An updated version of the Seven Pillars model is also available for downloading from the SCONUL web site.

In recent times, ACIL has turned its attention to the interface between information literacy and the curriculum. In 2003 a brief email survey of SCONUL members was carried out, inviting comments on the connections (if any) between information literacy and institutional learning and teaching strategies. Most respondents felt that this was an area where further work was required and that some examples of good practice would be helpful. Other respondents clearly demonstrated that information literacy was already an integral part of the learning outcomes expected of students.

ACIL discussed these findings, and decided to follow up those universities where there was evidence of good practice. Six case studies, explaining how information literacy was incorporated into the curriculum, were invited. All were asked to identify the process taken to devise suitable learning outcomes with academic staff, and to comment (honestly!) on any obstacles. Authors were also asked to provide examples of the learning outcomes, or complete module outlines.

An introduction to the concept of learning outcomes was commissioned from Dr Shân Wareing, Director of Educational Development at Royal Holloway, University of London, to provide the academic framework for developing a curriculum for information literacy, whether for stand-alone modules or within the subject discipline. She has related this to the case studies, and has also suggested an action plan to encourage the implementation of the ideas.

The resulting collection demonstrates a variety of differing strategies. ACIL hopes that they will provide comfort for those for whom it has not been plain-sailing, and will inspire others to develop an approach suited to their own organisation.

ACIL is very grateful to the Higher Education Academy for taking an interest in this publication at an early stage and for sponsoring its production.

Janet Peters
University of Wales, Newport
On behalf of the SCONUL Advisory Committee on Information Literacy

SCONUL and Information Literacy

Information literacy encompasses library user education, information skills training and education, and those areas of personal, transferable or 'key' skills relating to the use and manipulation of information in the context of learning, teaching and research issues in higher education.

The SCONUL Advisory Committee on Information Literacy

• provides a forum for discussion and for advice to the SCONUL Executive Board;

• informs and advises SCONUL Members on behalf of the Executive Board, including development of good practice;

• assists in developing a high level of expertise in operational and strategic issues for SCONUL;

• assists practitioners within SCONUL member organisations in developing policy and practice;

• provides a route for communicating with SCONUL member organisations;

• provides a liaison mechanism for SCONUL to interface with other interested parties;

• stimulates further development of policy and strategic thinking among SCONUL members;

• raises the profile of the topic among the broader constituencies of higher education;

• has links with UCISA TLIG and the CILIP Information Literacy Executive Group and is keen to work with other people in HE and the LIS profession both in the UK and overseas.

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Or see **http://www.sconul.ac.uk/activities/inf_lit/Publications**

Information Skills in Higher Education: A SCONUL Position Paper.
Prepared by the Information Skills Task Force, on behalf of SCONUL.
December 1999.
http://www.sconul.ac.uk/activities/inf_lit/papers/Seven_pillars.html

Corrall, S. and Hathaway, H. eds. 2000. Seven pillars of wisdom? Good practice in information skills development: conference proceedings, University of Warwick, 6-7 July 2000. London: SCONUL.

Johnson, H. 2003. The SCONUL Task Force on Information Skills. In: Martin, A. and Rader, H. eds. Information and IT literacy: enabling learning in the 21st century. London: Facet, p. 45-52.

SCONUL Seven Pillars Model for Information Literacy
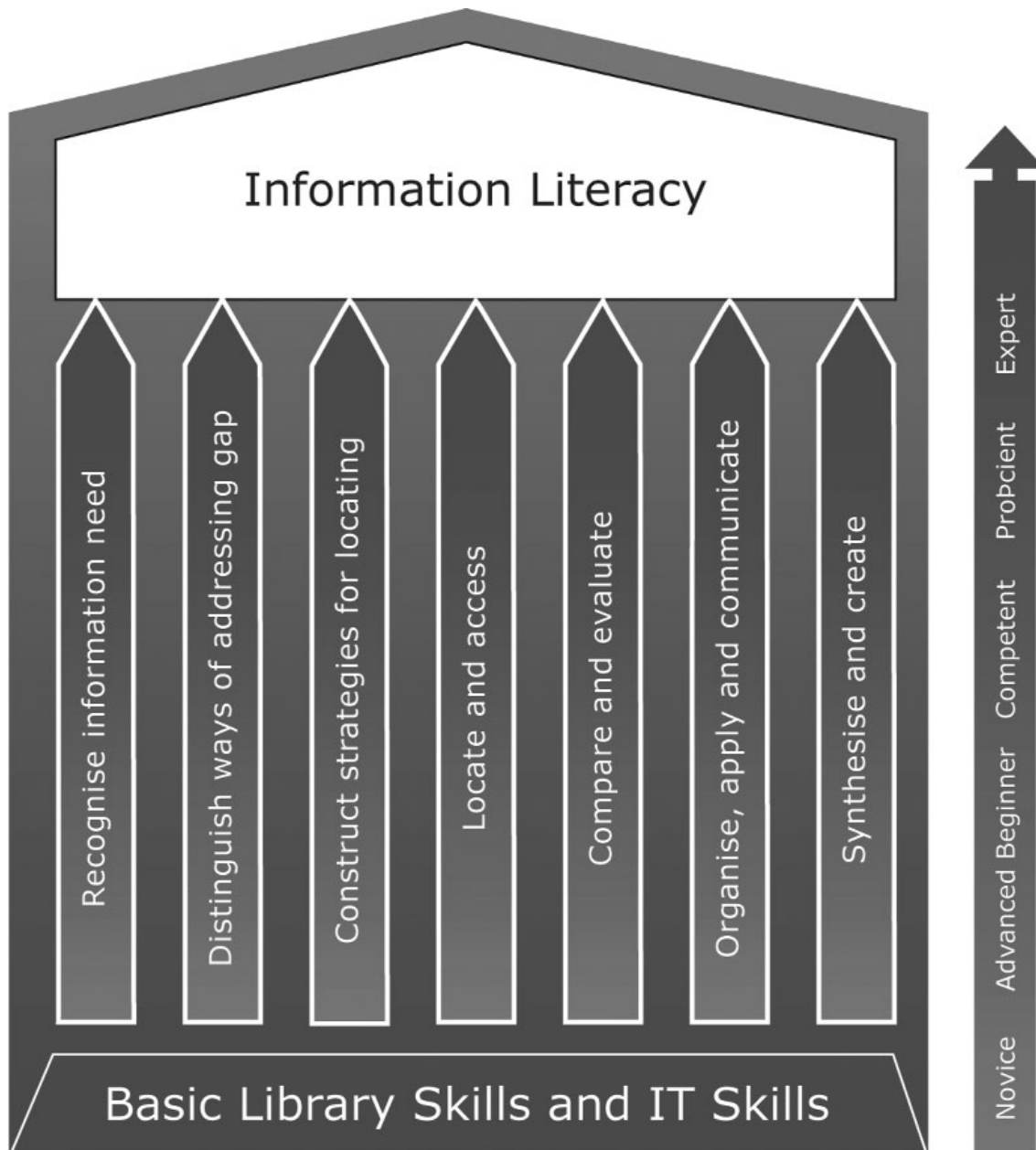
What's a learning outcome?

What is all the fuss about learning outcomes, and why do we need them now when we have managed without them in the past? Aren't learning outcomes merely a section on a course description form which has to be completed, a quality assurance hoop to be jumped through? Why would learning outcomes support the work of library and information services staff? This introduction will attempt to answer these questions.

A learning outcome is itself the answer to the question 'when the students leave (this event, session or course), what do I want them to know, or understand, or be able to do?' The educational importance of this question and answer process is that it focuses on what the students themselves do, not on what the tutor does. The question that is more commonly implicit in session or course design, 'what do I need to tell or show the students?', illustrates the tendency to focus on what the tutor does, not on what the students do. When teaching design starts from a foundation of learning outcomes, it is easier to focus on how students will apply what they learn, to take into account that learning is about skills as well as knowledge, and to incorporate active learning into courses and sessions.

From another angle, learning outcomes are a promise about what students who successfully complete a course or an activity will know, understand, or be able to do as a result. This promise is made to actual and prospective students, to possible employers of those students, and to those responsible for providing funding (such as the government, taxpayers, parents, and again, the students).

It is, however, challenging to write learning outcomes. Good learning outcomes are specific, achievable, and possible to assess. If you find yourself struggling to write a learning outcome that meets these criteria, you may want to turn to the Newport case study. This describes the difficulty of writing learning outcomes, and the sense of operating in a foreign language. It may also help to consider that learning outcomes only make explicit what should be part of course or session design anyway. It is the thinking that underpins learning outcomes which is really difficult!

To explore the point about assessment further: assessment of learning outcomes may be formative or summative depending on the context, and should often be both. Summative assessment contributes to the course, module or degree result; it produces a mark or a grade. Summative assessment also contributes to the quality assurance loop: it is the proof that students can do what the session, course or degree claims that they will be able to do. Formative assessment gives students feedback on their work about how well they are accomplishing the learning outcomes, and helps them adjust their activities; it helps students to do better and gives teachers information about how successful their teaching is. Assessment can be both formative and summative, but it helps students to have formative assessment before summative, to let them know if they are on the right track, to build their confidence, and to help them do better. Both formative and summative assessment provide opportunities for students to demonstrate learning outcomes, which is a good way to reinforce and deepen their learning.

Learning outcomes should also indicate an increasing level of sophistication as the student progresses through their years of study. Therefore a learning outcome for a course taken by first year students would be less demanding than the learning outcome of a course taken by a student in their final year, reflecting the improvement in students' knowledge, skills and cognitive approaches over the period of their studies. The SCONUL Briefing Paper (1999) *Information skills in higher education: a position paper* illustrates this incremental development of learning outcomes very clearly. Peter Godwin takes this further in his conference presentation *Information literacy: but at what level?* (2002), available from the ACIL section of the SCONUL web site. Several of the case studies illustrate the competencies expected for information literacy at various levels.

A focus on learning outcomes can be instrumental in prompting tutors to think: 'what might prevent my students achieving these learning outcomes?', which is one of the most important questions a teacher can ask. Below are some of the reasons for students not meeting intended learning outcomes.

1. There is too much information in the session or course. This will prevent the students having time to think and discuss, and reflecting on 'the big picture'. If this is a problem you encounter, the solution is to focus on the learning outcomes, decide which are essential, and build the course/session to focus on these. The Bradford Case Study comments "Some material was cut out to give more time to cover other areas better: it is tempting to try to cram in too much."

2. Students don't see the relevance of the session or course to them. If this occurs, a solution is to spend time at the beginning helping students to identify their needs and gaps, and link these to the learning outcomes of the session. People need to see the relevance of what they are learning in order to engage in a session or course, and to retain and use the new learning afterwards. Linking learning outcomes to course units is one way of doing this, as exemplified in the Southampton and Cardiff Case Studies.

3. What students already know or do not know may be an obstacle. Sometimes students do not have the prior knowledge you expect, and therefore they can't make sense of the content presented. For example, they could be lacking knowledge about your university, about the academic expectations on British undergraduates, about the discourse of information skills, or about the course requirements. Thinking about this beforehand helps you explain terms which might be confusing, avoid unnecessary use of terms which may be unfamiliar, and helps you adjust the learning outcomes and level of the session to address the students' actual needs.

4. Another version of the obstacle of students' existing knowledge is if they have knowledge or beliefs, preventing them making sense of the new knowledge they encounter. This was the case in the Bradford case study, in which students argued that they had already covered material in school but later admitted that they had overestimated this and that the course had enhanced their skills. To respond to this, give students something active to do, such as a quiz or a problem to solve in a pair or group. This will draw students' attention to the gaps or confusion in their knowledge, and prepares them for re-arranging and rethinking what they believe they know. This is what the York Iliad case study does, with its diagnostic test 'How ICT literate are you?'.

5. A further version of students' knowledge getting in the way is if some students in a group have already achieved some of the learning outcomes (for example, if they have already used the particular skills you are teaching). People in this situation tend to feel they are wasting their time, and do not pay appropriate attention to the other aspects of a session or a course which are new to them. Building awareness of this into course or session design helps minimise this effect. This is illustrated in the Abertay Dundee case study, where part of the impetus for re-designing their skills provision was the recognition that some students entered the university with high level technical skills, which other students still lacked.

Many of the case studies illustrate the extent to which changes in Information Services and course design are political decisions, in which many parties have a stake (the York case study for example, deals with questions of how provision is funded). Many of these case studies are good examples of staff finding effective levers to make changes. At Cardiff, the decision was taken by Information Services to have their Learning and Training Policy approved by a high level university committee, before embedding information literacy into course modules. At Abertay Dundee, staff analysed external examiner reports to cite comments on students' skills gaps and the quality of assessed work, in recognition of the strategic role of alliances and of university quality assurance processes. Newport's case study discusses the importance of convincing academic colleagues of the value of the project, the need for strategically placed champions, and for on-going communication between all parties (amusingly and rather violently referred to as 'blood-letting' meetings).

No one wants to spend time and resources reinventing the wheel. It is hoped that these case studies will enable Information Services staff to approach their tasks informed by this record of achievements, and problems faced and problems overcome (or tolerated!). You will find in this collection good examples of well-written learning outcomes which are specific, clear, and written at the appropriate level for students at different stages of study. The higher education institutions described here may have dealt with political situations other colleagues face, such as taking account of external drivers, including growing numbers of distance learners, as discussed in Bradford case study. Transferable skills and personal development planning also feature in this collection. The emphasis on evaluation is strong in many of the case studies, such as in the York 'Iliad' development, where many sources of evaluative information are employed. Delivery methods vary; York's Iliad development uses secure PDF documents, printed materials and a skills module. One decision many colleagues will need to make is whether their information literacy work with students should be accredited or not. There are examples of both approaches in these case studies, and sometimes both models operating in a single university (as is the case at York)

It is always helpful to have examples of complex institutional changes, such as the implementation of information literacy, illustrated through case studies. Amongst the achievements of this collection of case studies is that they interpret the generic principles discussed above in the specific context of information services' activities. They illustrate integration in examples of aligned curricula; that is, courses in which the assessment is designed to test the students' achievement of the learning outcomes, and the teaching is designed to help the students achieve the learning outcomes. They also illustrate the alignment of academic and information services staff co-ordinating provision to achieve a shared goal. The case studies give the full picture of what is involved in implementation, and show that course design can demonstrate good practice without necessarily being difficult to design or deliver. Finally, the case studies also honestly and realistically recognise that this is a journey, not an account of having reached a destination.

For colleagues about to embark on the implementation of an information skills development project, a possible approach to the process is given here.

1. Decide on your strategy; will you work at institutional level or course/subject level?

2. Who needs to be involved? Which members of information services staff can contribute to this project, and who are the appropriate members of academic staff to work with? Senior staff involvement may be necessary to get a project off the ground; junior colleagues may bring enthusiasm, skills and new ideas.

3. Organise meetings; plan together and agree a realistic timetable; if the time period is too long, the momentum will be lost; if it is too speedy, no one will have time to do the tasks identified. Remember to build your timetable around your academic calendar: when can courses be validated? When must rooms be booked? When are induction events planned?

4. Is there existing provision which needs to be evaluated for its relative success and problem areas? Do you have the data to make a sound evaluation, and if not, is it possible to obtain such data?

5. Design your course or session/s. Whatever the length, status or level, there are specific elements to consider:

6. Write your learning outcomes, based on what you want the students to achieve as a result of this teaching. This should take account of their existing skills and knowledge; their immediate application needs (can they use this learning at once? It is better if they can); and the time available (obviously the less time, the less learning can take place, by and large). What level are the students at, and is this appropriately reflected in your learning outcomes?

7. Decide how you will assess whether those outcomes have been achieved. This might be through formal, summative assessment if you are teaching an accredited course, or through informal student presentations at the end of an hour, if you are designing a single session. Whatever the nature of the teaching, you should ensure you include some means by which you can check whether the students have met the learning outcomes, and by which they can demonstrate to themselves that they have met those outcomes. *If you can't think of a way to assess your outcomes (a common problem!), they probably need to be rewritten.*

8. How will the session or course help the students to meet the learning outcomes? This is where you plan your teaching activities and materials. Students learn best through being active, through collaborating with each other, through engaging in tasks that are realistic, and through having a chance to reflect on what they've learnt. Students have different preferences for learning through visual, verbal, aural or kinaesthetic methods, so by incorporating opportunities for them all to read and listen to information, to look at images or diagrams, and to touch or point at objects or move around, you will increase the effectiveness of your teaching.

9. Do you need to practice any aspects of your session/course, perhaps by testing the materials or activities out on colleagues, or timing a presentation?

10. How will you evaluate the effectiveness of your teaching? The formative or summative assessment of your students will give you some feedback, but you may want to know more specific information about the successful or less successful aspects of the process. It is often hard to design evaluation sheets that give you good quality information you can act on, so it is worth spending some time on the design of your evaluation in the early stages of the project. Focus groups often produce high quality information, if run appropriately.

11. After the course or session has run, look at the evidence of how it went. What do you need to revise for next time? You will need to revisit some of the items on this list as part of your revisions!

The development of students' Information Literacy is an important area of university provision. I hope you find the case studies that follow as stimulating, informative and motivating as I have done.

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Royal Holloway
University of London
June 2004

University of Abertay, Dundee

Christopher Milne, Senior Information Specialist (Academic Librarian)

Background: The University of Abertay Dundee/Information Services

The University of Abertay Dundee, has been recognised as an 'industrial university' since 1902, although not receiving formal university status until 1994. UAD is renowned as an institution that forges close links with employers and industry to develop primarily vocational courses focused on producing a relevantly skilled workforce. Naturally the development of key 'employability' skills within degree programmes retains a strong focus. We are a small, yet highly dynamic institution, supporting 5,600 students, of which 900 study at partner institutions overseas.

Development of C&IT, Library & Information Skills: Pre Information Literacy

Information Services[1] plays a leading role within the University in supporting the delivery and development of C&IT and Library & Information Skills. The Service has been in a fortunate position, in that since 1994 University degree programme approval mechanisms require that course teams demonstrate where Library & Information skills input will take place, before endorsement can be granted. This process formalised the recognition of these skills and their integration into the curriculum.

Delivery of baseline C&IT and Library & Information skills to all first year students became a compulsory element of the curriculum across all undergraduate programmes in 1999 in a standalone module (IT101A) for which Information Services was responsible. A dedicated team of IT trainers and Academic Librarians combined to develop and deliver the module.

Information Literacy at the University of Abertay Dundee

Following a recommendation of the University Quality Enhancement Committee, in March 2004, the University Senate formally approved the UAD Information Literacy Framework. This requires the integration of Information Literacy learning outcomes into all undergraduate programmes, across all four Schools. This paper outlines the various processes and stages that were undertaken to achieve this significant change. It also outlines how Information Literacy learning outcomes, specific to the University were developed, and the processes required for integrating these into the curriculum.

Moving Towards Information Literacy: Drivers for Change

There were a variety of factors, both internal and external that influenced the development of Information Literacy at the University of Abertay Dundee. In summary:

Internal

1. It was recognised that the value of retaining a dedicated skills module within first year courses (IT101A) was diminishing as:

• A significant number of students entering the University now possess many of the baseline C&IT skills delivered in IT101A, although some students still lack rudimentary C&IT skills, which have to be developed.

• There was growing pressure from the Schools, to free up teaching time to devote to the development of other key skills. This shift was further reinforced by the review of the University modular scheme i.e.

• Move from 10 to 8 modules ('thin' to 'fat') with the aim of introducing more time for deeper learning and skills development. Schools were reluctant to retain a dedicated skills module at the expense of subject-based areas of the curricula

2. Recognition that despite existing mechanisms to integrate Library & Information skills into the curriculum and the best efforts of staff, a number of students do not leave UAD with a high proficiency in information handling skills:

• Many students demonstrate an over reliance on the Internet to meet their information needs;

• Poor selection of information, a failure to consult other established information sources, and to read round a subject is detrimental to the quality of education and the student experience

External

1. Issues of 'graduateness' i.e. In the shift towards a knowledge economy, employers are placing a greater emphasis on information handling skills, as a key to competitive advantage

• There is a growing recognition that students are not leaving University with the high degree of information handling skills that employers are now looking for; where once students 'read' for a degree, they now 'click' for a degree, with arguably adverse results.

2. Acknowledgement of the growing volume of literature, case studies and examples of best practice both nationally and internationally advocating the deeper integration of skills development into the curriculum, further weakened the case for retaining a stand-alone skills based module.

Securing Change: Consultation

1. The key to securing a shift towards Information Literacy within UAD was consultation with colleagues in the Schools. Getting the chance to air our proposals, sound out attitudes and thoughts of colleagues, to crystallise our thinking, and to gain the confidence of colleagues that we were looking to develop solutions to common problems was key. This involved discussions within Information Services, with Heads of Academic Schools and the Secretariat. Common problems were:

a. Significant problems in the quality of student work, in terms of plagiarism, over reliance on the Internet, and poor exploitation of information sources to complete academic work;

b. Students experiencing and demonstrating a gap in their information skills;

c. The awareness that the quality of student work and the learning experience could be improved, in part through deeper integration of information skills into the curriculum;

d. The desire to integrate key skills into the curriculum, as opposed to delivery in a standalone module;

e. The desire to increase the subject focus of information skills;

f. The desire to badge 'information skills' as a programme outcome for all UAD graduates

2. External examiner reports were analysed and, where relevant, comments identifying skills gaps, and declining quality in student work were used. This proved to be a very effective lever further supporting the case for change. This struck a powerful chord with Academic staff.

3. Examples of best practice and case studies, were used in discussions to demonstrate that successful change could be achieved, and that other institutions were beginning to resolve many of the problems that our students and academics currently faced.

Information Literacy Proposals

A concept paper "Information Literacy: a discussion paper outlining proposals for the development of an integrated IT and Information Skills Programme" was circulated widely and gained broad institutional acceptance.

Other key elements that enhanced the proposals for change were:

1. Recommendation that the Information Literacy programme be centred on external standards i.e. SCONUL model;

2. A draft mapping exercise, which was completed with the assistance of the School of Computing & Advanced Technologies. This illustrated how the SCONUL seven headline information skills could be successfully integrated into the University's existing modular structure. The mapping exercise was based upon a framework used by South Bank University. This gave colleagues further insight into our proposals and the confidence that change could (on paper) be successfully achieved;

3. The extensive body of literature, case studies and examples of best practice in the Information Literacy field, which could be readily exploited to develop an educationally sound information skills programme building on existing Institutional practices

Developing the Concept into a Programme

A draft Information Literacy Framework was developed in the Summer/Autumn of 2004, based on the recommendations and principles set out in the original concept paper. Again consultation with the colleagues was vital to ensure that we developed a successful solution.

The Modular Scheme review not only acted as a driver for change, it also increased the likelihood of information literacy skills being integrated more deeply into the curriculum as a 'blanket' change throughout the University, as opposed to a piece-meal basis. Otherwise, the integration of Information Literacy skills into the curriculum would have only occurred on a course-by-course basis during the appointed time for course review and re-validation.

The UAD Information Literacy Framework

In summary, the UAD Information Literacy framework was developed to provide Schools with a tool outlining:

• The indicative range of C&IT skills and Library and Information skills to be developed, set against established and emerging national standards i.e. SCONUL 'seven pillars' model, European Computer Driving Licence and the IT User Skills Framework, and at various levels.

• Associated learning outcomes

• Options for integrating skills developments within teaching, learning and assessment strategies. Wherever possible the assessment on information literacy skills must be integrated within

the subject discipline to avoid over assessment and to further reinforce their relevance to the students

Appendix A contains extracts from the framework, displaying the Information Literacy programme's philosophy and rationale, educational aims, programme outcomes, teaching and assessment strategies. Learning outcomes are available in Appendix B. Appendix Ccontains exemplars from programme specifications, and Appendix D provides sample programme outcomes.

Acknowledgement of Information Literacy Skills Development

Course Teams are encouraged to use the Framework to outline how Information Literacy related skills would be developed within programme specifications, programme outcomes, and stage outcomes. The examples in Appendix C indicate how these skills can be acknowledged within programme specifications and programme outcomes. Course teams must be able to demonstrate *how Information Literacy learning outcomes will be embedded within programmes, and how these will be assessed.*[2]

Learning Outcomes

The Framework, outlines the skills to be developed at each level, with indicative learning outcomes. Indicative content & skills are also outlined to provide colleagues with an essence of type of activities to be covered, and the associated skills to be developed. In essence the Framework is a tool to help course teams develop Information Literacy learning outcomes, of relevance to their course requirements, within a defined context. Information handling skills are mapped against the SCONUL seven pillars model, where ICT skills are aligned with ECDL and the emerging IT User Skills framework.

Skills can be developed within four levels/stages, i.e:

• Minimum standard on entry - ICT skills
Here students joining the University will have support to evaluate (via diagnostic testing) and remedy existing skills gaps, in order to develop a basic proficiency that will support subsequent skills development.

• Baseline. Similar skills development compared with earlier first year programmes

• Intermediate and advanced stages can be used as appropriate by course teams to further develop skills as appropriate throughout their programme of study.

The levels listed above do not necessarily equate to a particular year within a degree programme. It is expected that most courses will develop 'baseline' skills in the first year. However some ICT elements such as data modelling in spreadsheets (at baseline level) may be more appropriately developed in subsequent years.

Next Stages

Session 2004/5 will see the start of the delivery of the University's Information Literacy programme to all four Schools, integrated within the revised modular scheme. Information Literacy developments during the next academic session will focus on critically evaluating the operation, and delivery of the Information Literacy programme against the proposals in the original concept paper and benchmarking the University's Information Literacy programme against established best practice and developments in other Higher Education Institutions.
We have also recognised the need to align our information literacy developments with the sec-

ondary and further education sectors, to ensure that students joining the University have the ability to develop their skills.

Information Literacy developments during the next academic session will focus on:

1. Implementing the outcomes of the organisational review within Information Services;

2. Critically evaluating the operation and delivery of the Information Literacy Framework against the proposals in the original paper to ensure the aims are met and Information Literacy skills are successfully integrated within programmes and where appropriate with assessment strategies.

3. Benchmarking the University's Information Literacy programme against established best practice and developments in other Higher Education Institutions. This will include review by external professionals to ensure that the programme develops to the highest quality standards (Gordon *et al*., 2003).[3]

4. Beginning to develop partnerships with the secondary and further education sectors to ensure that the UAD Information Literacy programme is aligned with similar programmes in these sectors, in order to provide a meaningful transition for new students entering programmes at the University.

5. Beginning discussions with the research community at UAD to establish what role an Information Literacy programme can play in developing the skills of students embarking on Postgraduate and Higher degree courses, and how best to design a programme that meets their needs.

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[1] Information Services, is a converged department pulling together IT infrastructure, Library, Management Information Services, Audio-Visual & Multi-media and Printing & Graphic design functions.

[2] At the time of writing, colleagues within Schools are currently drafting revised module descriptors. As such no modular descriptors containing Information Literacy outcomes have been finalised. This paper includes 'draft' module descriptors from the LLB (Hons) programme to illustrate how Information Literacy skills can be integrated

[3] Recommendation 6 Gordon, A., et al. 2003. Information Literacy: A discussion paper outlining proposals for the development of an integrated IT and information skills programme. (QUEN-TAL Concept Paper No 3) [Online] Centre for the Enhancement of Learning and Teaching, University of Abertay Dundee. Available from: **http://celt.tay.ac.uk/downloads/QUENTAL-CONCEPT3.doc** [Accessed 24 October 2003].

University of Abertay Appendix A

Here, you will find some extracts from the University of Abertay Dundee, Information Literacy Framework, as approved by the University Senate, March 2004.

Programme Philosophy & Rationale

Graduates will be able to apply generic and key skills appropriately; recognise their value and transferability to a range of situations within and outside the context of the discipline; and use the skills to enhance their capabilities as life long learners.

Programme (Educational) Aims

The Programme aims to develop information literate graduates who:

• Can recognise when information is needed and have the ability to locate, evaluate, analyse, use and communicate it effectively, including the use of ICT where appropriate

• Are self reliant in their use of ICT with the ability to use available online and printed support documentation to solve problems, and to transfer expertise gained in using any one software package to a range of other applications, thus promoting independent learning.

Programme Outcomes

ICT skills are usually but not exclusively incorporated with programme outcomes that focus on transferable or key skills. Library and information skills however are frequently integrated with a range of programme outcome categories depending on the context and emphasis of the programme, for instance the QAA Guidelines and Benchmark statements give examples of information skills associated with intellectual or cognitive skills, subject specific or practical skills, and also transferable skills. Programme tutors in collaboration with the information literacy team will establish the best fit for the programme of study.

Typically students will be able to:

• Apply ICT in acquiring, organising, analysing and communicating information (including use of generic applications e.g. word processing, spreadsheets, electronic mail, presentation packages, on-line databases, and other software appropriate to the discipline)

• Select appropriate ICT applications and functions suitable for a specific task or to solve a problem, and apply them to support academic study

• Conduct research in the subject including identifying, evaluating and selecting from a range of sources, and the ability to synthesise and build on existing information to extend their knowledge and understanding

• Acknowledge sources used through appropriate citing and referencing in a style approved by the University, and to be aware of other bibliographic styles that may be used by the discipline or profession

Teaching Learning and Assessment Strategy

Teaching learning and assessment strategies should make it clear to students what is expected of them, for example that sources used must be acknowledged and appropriately referenced in all submitted work not just a single piece which is linked to an information literacy outcome, or that data analysis using appropriate software must be carried out.
Practical workshops and IT laboratories led by the information literacy team will mainly be used to enable the information skills and ICT learning outcomes to be achieved and demonstrated. Students will also be guided in their use of study packs and online learning activities.

University of Abertay Appendix B

The following pages, list the learning outcomes, indicative content & skills and the mapping to external standards for all levels within the UAD Information Literacy model. Course teams within the University are required to demonstrate where Information Literacy learning outcomes have been absorbed into their degree programmes, with the exception of the minimum standard on entry level of the framework.

Baseline Skills - Indicative Content

Library & Information Skills

Level	UAD - Baseline Skills SCONUL: "Novice" / "Advanced Beginner"
Outcomes	Identify, locate and evaluate appropriate academic sources for a set academic task using key library and information skills, and acknowledge their use.

UAD Indicative Content & Skills	SCONUL Information Skills
Identify from citations in a reading list what information is given and what action is required to find the items	Skill 1 – Recognise a need for information
Use the Library catalogue to find items on a reading list	Skill 2 – Select appropriate sources
Understand the concept of field searching using the author/title/subject indexes of the Library catalogue	Skill 3 – Construct search strategies
Locate items in the different collections in the Library	Skill 4 – Locate and access information
Understand how the Dewey Decimal Classification System works	Skill 4
Know how to borrow, renew and reserve items, including advance booking of Short Loan items	Skill 4
Use the Virtual Library to locate online databases of abstracts, and full text journals and newspapers	Skills 1, 2, 3 & 4
Understand the difference in content between books and journals	Skill 5 – Compare and evaluate information
Evaluate the quality of information retrieved in print and online using criteria such as authorship, bias, currency, validity etc	Skill 5
Use the Internet critically for communication and information retrieval	Skills 1, 2, 3, 4 & 5
Reference books, journals and online material using the Harvard style	Skill 6 – Organise, apply and communicate information
Cite references in the text of written work	Skill 6
Understand the issues associated with plagiarism and copyright	Skill 6

Learning Outcomes and Information Literacy (2004)

Intermediate Skills – Indicative Content

Library & Information Skills	
Level	UAD - Intermediate Skills SCONUL: "Advanced Beginner"/"Competent"
Outcomes	Recognise the need for information required for a task and be able to identify and search a range of appropriate sources to locate and retrieve that information Evaluate information retrieved and be able to select from relevant primary and secondary sources.

UAD Indicative Content & Skills	SCONUL Information Skills
Define the information need for a particular task	Skill 1 – Recognise a need for information
Be aware of and differentiate between the various types of information resource available, and select an appropriate one	Skill 2 – Select appropriate sources
Understand the importance of, and identify the keywords, synonyms and related terms for the information needed	Skill 3 – Construct search strategies
Identify and use search techniques appropriate to the information resource used	Skill 4 – Locate and access information
Construct a search strategy using commands appropriate to the information resource being used	Skill 4
Download and print records retrieved	Skill 4
Be aware of external sources of information where appropriate e.g. inter-library loan, reciprocal agreements with other libraries, UK Libraries Plus	Skill 4
Understand the peer review process and identify the purpose and potential audience of resources	Skill 5 – Compare and evaluate information
Evaluate the quality of information retrieved in print and online using criteria such as authorship, bias, currency, validity etc	Skill 5
Examine information resources critically to evaluate reliability, validity, accuracy, authority, bias etc	Skill 5
Reference books, journals and online material using the Harvard style	Skill 6 – Organise, apply and communicate information

Advanced Skills - Indicative Content

Library & Information Skills

Level	UAD - Advanced Skills SCONUL: "Competent/Proficient"
Outcomes	Develop and implement an information retrieval strategy appropriate to a topic or problem Select from a range of relevant primary and secondary sources including theoretical and research-based evidence to extend their knowledge Develop a range of strategies to keep up to date with the literature of the discipline.

UAD Indicative Content & Skills	SCONUL Information Skills
Develop a research plan appropriate to the topic selected	Skill 1 – Recognise a need for information
Identify the most appropriate resources to meet the information need	Skill 2 – Select appropriate sources
Create a search strategy having identified key concepts and terms describing the information need	Skill 3 – Construct search strategies
Be aware of differences in spelling and terminology	Skill 3
Understand the advanced search facilities of databases e.g. indexes, search limits	Skill 4 - Locate and access information
Download and print records retrieved	Skill 4
Be aware of external sources of information where appropriate e.g. inter-library loan, reciprocal agreements with other libraries, UK Libraries Plus	Skill 4
Use current awareness services to set up TOC and search alerts	Skill 4
Gather and evaluate information and modify the research plan as necessary	Skill 5 – Compare and evaluate information
Understand the peer review process and identify the purpose and potential audience of resources	Skill 5
Critically evaluate reliability, validity, authority, bias etc. of information sources	Skill 5
Reference books, journals and online material using the Harvard style	Skill 6 – Organise, apply and communicate information
Use Bibliographic Management software (e.g. EndNote) to import references from databases and the Library catalogue	Skill 6
Use Bibliographic Management Software linked with a word processor to prepare reference lists and bibliographies	Skill 6
Access and use information legally and ethically	Skill 6

University of Abertay Appendix C: Exemplar Information Literacy Learning Outcomes

The following extracts from module descriptors provide examples of how Information Literacy related learning outcomes can be integrated, in this instance within the LLB (Hons) Law programme.

Module Code: LA0931A
Module Title: Year 3 Project

Aim

The aim of this Module is to enable students to undertake a piece of independent legal research into an appropriate area chosen by themselves, and approved by their supervisors.

Learning Outcomes

By the end of this module the student should be able to:
1. Develop further their ability to use and analyse legal sources, evaluate legal literature and to use legal reasoning;
2. Demonstrate their ability independently to analyse, synthesise, and evaluate knowledge and information relating to a specific legal issue;
3. Develop further their written communication skills and time management skills in the pursuit and completion of the project.
4. Demonstrate higher level legal writing skills.

Indicative Content

1. *Rationale*
This module allows the student to develop his or her **research skills** and to acquire a deep understanding of an area of law chosen in conjunction with the module tutor.
2. *Rationale*
Students will **build on previous research skills** developed as part of coursework writing in the first and second year. Supervision of the project will take place either through regular face-to-face meetings, or by means of electronic communication.
3. *Rationale*
Students will be expected to form a thorough understanding of the area of research, and to demonstrate further progress in higher level skills of analysis, synthesis and evaluation. This module will also help prepare students for their honours project in the fourth year.

Module Code : LA420P
Module Title : Law Honours Project

Brief Description

Each honours student is required to undertake a major piece of research on a topic proposed by the student, subject to agreement and appropriate supervisors. The project comprises 10,000 words and is an opportunity for students to demonstrate good research skills in law as well as skills of presentation, analysis and synthesis of ideas.

Aim

The aim of this Module is to require students to produce a substantial written piece of in-depth legal research

Learning Outcomes

By the end of this module the student should be able to :
1. Develop further their ability to **use** and **analyse legal sources**, to evaluate legal literature and to use legal reasoning in an independent, in depth manner;
2. **Synthesise, evaluate and critically analyse knowledge and information relating to a specific legal issue;**
3. Demonstrate enhanced skills of oral and written analysis and communication, in constrained circumstances.

Indicative Content

1. *RATIONALE*:
The project is a major piece of **research** in which students use their prior learning in law, supplemented with project-related studies, to analyse an appropriate legal problem and to produce a written dissertation. The final dissertation is approximately 10,000 words in length.
2. *RATIONALE*:
The preparation of the dissertation involves in the first instance, the demonstration of existing knowledge and skills.
3. *RATIONALE*:
It also requires the higher order skills of analysis, evaluation and critical judgement. An important part of the project is the requirement for students to demonstrate their **ability to locate** and interpret **sources of law**.

University of Abertay Appendix D: Exemplar Programme Outcomes

In addition to programme specifications, acknowledgement of Information Literacy skills is also desirable within a course's programme outcomes. Typically C&IT skills are listed as key transferable skills, whereas information handling skills can fall under the headings of:

• Cognitive
• Subject Specific Skills
• Key Transferable Skills, for example:

Programme Outcomes LLB (Hons) Law

Level 1: Programme Outcomes (Of Relevance to Information Literacy)

  Key transferable skills:

  'Demonstrate a competence in basic C&IT skills'
  'Employ basic library search skills'

Level 2: Programme Outcomes (Of Relevance to Information Literacy)

 Subject specific skills:

  'Acquire more advanced legal research skills'

 Key transferable skills:

  'Demonstrate competence in C&IT and Library research skills'

Level 3: Programme Outcomes (Of Relevance to Information Literacy)

Cognitive skills:

'Synthesise material from a range of sources and analyse its relevance'

Level 4: Programme Outcomes (Of Relevance to Information Literacy)

Cognitive skills:

'Analyse conceptual and theoretical problems, synthesising information from across subject areas'

Subject specific skills:

'Identify and retrieve appropriate information and legal sources, both paper and electronic, including information that may not have been previously studied'

The incorporation of information literacy skills within programme specifications, and programme outcomes is at the discretion of each course team. The Information Literacy framework provides guidance as to how these skills could feature within these areas of course documentation.

Cardiff University

Cathie Jackson MSc PGCE (FE/HE)(Information Specialist - Law)

Rebecca Mogg MA (Information Specialist)

Background: Cardiff University Information Services

Cardiff University is the largest University in Wales and is recognised for its high quality research and research-led teaching. In the most recent independent assessment of research quality in universities, Cardiff was ranked 7th out of more than 100 British universities.

Information Services develops and delivers library and computing services to the University's 23 academic Schools. Libraries are located close to the Schools they support and offer printed collections, advice and training tailored to their needs along with access to computer facilities. Information Services provides an extensive range of electronic information resources which are accessible via the web.

Information literacy policy

In 2001 Information Services Learning and Training Group devised a Learning and Training Policy, which informed Cardiff University's approach to skills development. This recognised the value of information literacy as a basis for lifelong and self-directed learning as well as a key employability skill.

The Policy adopted the framework from the Association of College and Research Library's Information Literacy Competency Standards for Higher Education (2000) (Appendix A). As well as providing a set of information literacy standards, this framework suggests outcomes and performance indicators, which can be adapted, as appropriate, by individual institutions. These served as guidelines for the development of scenarios within the Learning and Training Policy which demonstrate how information literacy learning outcomes could be devised for an under-graduate student, a PhD student and an administrative member of staff in an academic department (Appendix B).

In 2002 the Learning and Training Policy was passed to the University's Teaching and Learning Committee, who approved it as University policy. A Guidance Note was produced to facilitate implementation of the policy across the University. A key argument of the Guidance Note is that information literacy skills should be embedded into the academic curriculum and not be treated as a 'bolt-on' set of generic skills. The importance of establishing collaboration between all those involved in the learning and teaching process in order to achieve this integration is also stressed.

The Guidance Note was formally launched in May 2003 at a University Quality In Learning and Teaching (QUILT) seminar. Prior to this Information Services staff had already begun to promote the concept of information literacy to academic staff. A number of academic Schools have adopted the concept but the extent to which it is embedded fully into a module or modules varies. In the following section, case study examples demonstrate how information literacy has been embedded into first-year modules offered within two Schools.

Cardiff Law School - Legal Foundations

The Law School was the first to embed information literacy learning outcomes into a module at Cardiff University. The revised module, Legal Foundations, has been running for three years. It

is a compulsory, semester one, 20 credit module for the 230 first year law students. The module introduces students to the main features of the legal system in England and Wales and develops the basic legal skills needed in the study of law. Its aims and learning outcomes are given in full in Appendix C.

The module leader used the information literacy standards and examples of learning outcomes from the Learning and Training Policy to remodel the module's learning outcomes. The standards gave a theoretical framework to the skills element of the module and tied the IT and legal research skills, which had previously been 'bolted-on', fully into the module's legal content.

Half way through the semester, students are given a hypothetical but topical scenario, which is used as the medium for gaining information literacy skills over the next three to four weeks. The legal knowledge needed to underpin the scenario is delivered during earlier lectures. Each of the 16 seminar groups is split into two teams of "lawyers", to argue opposing viewpoints.

The Law Information Specialists facilitate one of the weekly two-hour sessions for each group, helping students find the information they need for their preparation. Skills from information literacy Standards One and Two (Appendix A) are developed during this session and in the student preparation. Standards Three and Four (Appendix A) are developed in the following two tutor-led seminars during which the teams discuss what they have read from the information found in the previous seminar and the tutor helps them evaluate the sources. The information is then used to argue their case in the seminar and draft a clause of a bill. The following week the scenario topic is again used, this time in developing essay writing skills.

The model used in Legal Foundations integrates the accessing of information into the total research process, as a 'means to an end'. The skills are developed further by the students in preparing and delivering an oral presentation and in a moot, and the learning outcomes are assessed through the formative coursework.

Cardiff School of Computer Science - Communication Skills and Project Management

The Communication Skills and Project Management module incorporated information literacy learning outcomes for the first time in the 2003/4 academic session. It is a compulsory ten credit module which all first-year students undertake during Semester One. The module introduces students to basic project management as well as to computer virus recognition and protection methods. Appendix D details the module aims and learning outcomes.

Information literacy skills are developed during weeks seven to nine of the module. The Information Specialist delivers two workshops during which the students learn how to use electronic databases effectively, evaluate the quality of information and cite references. In preparation for the workshops, module tutors give the students a choice of eight subject related topics to research using the techniques they will learn.

This programme contributes to students' development of information literacy skills as identified in Standards One to Three of the framework (Appendix A). These workshops are then followed by written and verbal presentation skills sessions, delivered by module tutors, to develop aspects of information literacy Standard Four (Appendix A).

In week nine students consolidate this training by incorporating the information they have gathered into an assessed PowerPoint presentation and a bibliography detailing the sources they have used. Students' information literacy skills are then assessed again during the module exam using short answer questions.

Cardiff University Appendix A: Association of College and Research Libraries Information Literacy Competency Standards for Higher Education:

1. The information literate individual determines the nature and extent of the information needed.

2. The information literate student accesses needed information effectively and efficiently.

3. The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

4. The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.

5) The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

ACRL. 2000. Information Literacy Competency Standards for Higher Education. pp. 8-14 [WWW] <URL: http://www.ala.org/ala/acrl/acrlstandards/standards.pdf> [Accessed 9 February 2004]

Cardiff University Appendix B

Scenarios

The following scenarios, extracted from Information Services' Learning and Training Policy (2001), demonstrate how the information literacy standards can be adapted to devise learning outcomes.

Undergraduate student

Tom is a first year Astrology undergraduate. He is working on his assessed essay for the History of Astrology module. He is already familiar with finding information from a reading list, but now needs to produce a well-referenced essay using a range of resources beyond those given in the directed reading.

A week after the assignment is set, the tutorial focuses on the Astrological Abstracts CD-ROM and how to cite references. The tutor directs the class to the RDN Virtual Training Suite course "Internet Astrologer". Tom discovers that the original historical sources noted in the essay title have been digitised and are freely available on the Web. For background information, he visits a higher education gateway recommended by the RDN course then searches for his topic via Google. Although some of the sites seem interesting, he remembers the advice of the "Internet Detective" online course and evaluates the web sites before using the information.

A search on Astrological Abstracts reveals a number of useful-sounding references. He finds three of the articles in the library and another two in electronic form linked from the library cat-alogue.

As he types his assignment, he has trouble inserting footnotes and page numbers. He refers back to the self-paced guide to Word which he was given at the start of the year. There had

been drop-in workshops to support those who lacked confidence, but as he was familiar with Word already he had just kept the guide.

This assignment has given Tom a firm foundation in information literacy skills which will be built on at appropriate points during the next two years.

Learning Outcomes.

These are the information literacy learning outcomes set by the Department of Astrology to be achieved by students by the end of Year 1. Those learning outcomes achieved through preparation for the assessed essay are bordered.

Standard One

The information literate individual determines the nature and extent of the information needed.

• Identifies the value and differences between potential resources in a variety of formats (at this stage; books, journal articles, manuscripts and web sites).

• Differentiates between primary and secondary sources, recognising the importance of each in the study of astrology.

• Analyses the given essay title and defines the information need.

• Defines a realistic overall plan and timeline to acquire the needed information.

Standard Two

The information literate individual accesses needed information effectively and efficiently.

• Locates required print materials in the library and uses internal organisers such as indexes and contents pages in books and journals to identify the required information.

• Selects the appropriate information tools to access the required information.

• Identifies keywords, synonyms and related terms for the information needed.

• Searches the Astrological Abstracts CD-ROM in an effective manner, using Boolean operators and truncation appropriately.

• Selects appropriate Web subject-related gateways to navigate the Web efficiently and effectively.

• Uses web search engines in an effective manner, using appropriate commands such as Boolean operators and truncation.

• Assesses the quantity, quality and relevance of the search results to determine whether alternative search terms or techniques should be used.

• Extracts the needed information using the most appropriate technique (such as copy/paste, downloading, emailing or printing).

Standard Three

The information literate individual evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

• Selects the main ideas or key data accurately and analyses the structure and logic of supporting arguments or methods.

• Examines and compares information from various sources in order to evaluate reliability, validity, accuracy, authority, timeliness and point of view or bias.

• Determines if original information need has been met, and if not, reviews and expands sources to include others as required.

Standard Four

The information literate individual uses information effectively to accomplish a specific purpose.

• Participates with well-informed contributions to tutorial discussions.

• Integrates appropriate information, including quotations and paraphrasing, into written work, in a manner that supports the purposes of the assignment.

• Presents written work as well-formatted word-processed documents.

• Communicates by electronic mail where this is the medium which bests suits the message and the intended audience.

Standard Five

The information literate individual understands many of the economic, legal and social issues surrounding the use of information and accesses and uses information ethically and legally.

• Demonstrates an understanding of copyright issues and complies with fair use criteria when photocopying and manipulating data electronically.

• Complies with institutional policies on access and use of information resources and facilities.

• Maintains the security of approved passwords and other forms of ID for access to the computer network and information resources.

• Demonstrates an understanding of what constitutes plagiarism and does not represent work attributable to others as the student's own.

• Uses the citation system selected by the Department of Astrology consistently to cite sources in footnotes and bibliographies.

• Follows accepted practices ("Netiquette") when communicating in an electronic medium.

Further learning outcomes are developed through second year options and the final year dissertation.

PhD Student

Helen is a year into her PhD, looking at the role of astrology in medicine in Elizabethan society. She has just updated her literature search and discovers a recent article analysing a physician's astrological casebooks of thousands of medical consultations in London during her period. The research was funded by the ESRC.

She remembers from the research training scheme at the start of her PhD, that the data from ESRC funded research is often deposited with The Data Archive. She didn't investigate the service at the time and does not know its address. She follows the principles shown in the training, by browsing the astrology subject pages created by the university. Under the Statistics and Datasets section, she finds a link to The Data Archive. She reads the help pages before using the BIRON catalogue. The statistical data from the casebooks has indeed been deposited in electronic form.

She registers with The Data Archive then downloads the relevant data set and proceeds to analyse the data using SPSS. This works well but she realises that the results could be displayed more easily in a graphical format. SPSS has some built-in graphing facilities but these are quite basic and whilst talking with some friends she realises that Microsoft Excel has a much more powerful graphing capability.

Helen contacts her Resource Centre. The Information Specialist gives her documentation describing forthcoming IT courses, noting that a course on producing and formatting graphs in Excel is being offered in a couple of weeks time. In the meantime, she puts Helen in contact with an Excel specialist. He shows her how to import her results into an Excel worksheet but confirms that the course would help her become more familiar with graphing techniques.

Learning outcomes

The Department of Astrology sets a comprehensive range of information literacy learning outcomes to be achieved by research postgraduates by the end of their first year. These learning outcomes are met through the research methodology training and applied in the students' research. Helen has achieved those learning outcomes.

Listed below are the learning outcomes demonstrated by the scenario.

Standard One

The information literate individual determines the nature and extent of the information needed.

• Recognises that existing information can be combined with original thought and analysis to produce new information.

• Identifies potential resources of information.

Standard Two

The information literate individual accesses needed information effectively and efficiently.

• Selects an efficient and effective approach for accessing the information needed.

• Implements a search strategy using appropriate commands for the information retrieval system selected.

• Extracts, records and manages the information and its sources.

• Uses specialised online or in person services available at the institution to retrieve information needed.

Standard Three

The information literate individual evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

• Synthesises main ideas from the information to construct new concepts.

• Compares new knowledge with prior knowledge to determine the value added, contractions or other unique characteristics of the information.

• Uses computer technologies (such as statistical analysis applications and spreadsheets) for studying the interaction of ideas and other phenomena.

Standard Four

The information literate individual uses information effectively to accomplish a specific purpose.

• Chooses a format which communicates the information effectively.

• Uses appropriate information technology applications to display numerical data in a format which best supports the purposes of the document and its intended audience.

Standard Five

The information literate individual understands many of the economic, legal and social issues surrounding the use of information and accesses and uses information ethically and legally.

• Demonstrates an understanding of intellectual property and fair use of copyrighted material.

• Ensures that text, data and images are obtained, stored and disseminated legally.

Cardiff University Appendix C: Legal Foundations – module aims and learning outcomes.

N.B. Aims and learning outcomes associated with information literacy are underlined

Aims of the module

1. To introduce students to the main features of the legal system in England and Wales and to its operation in contemporary society.
2. To develop in students basic skills in:
      2.1 legal analysis of primary materials;
      2.2 legal research;
      2.3 construction of legal arguments;
      2.4 applications of information technology;
      2.5 presentation of the results/productions of the above in written and oral form.

Learning outcomes of the module
Subject-specific abilities

At the conclusion of this module, students will be able to:

1.define the functions of law within society and illustrate how law may be used to achieve social goals;
2.identify the principal methods by which law is reported and distinguish between official and unofficial reports;
3. explain the principal features of the court system in England and Wales;
4. outline the sources of law and explain their relative authority;
5. describe the roles of the judiciary and magistracy in the legal system and evaluate the effects of arrangements for their selection and training on performance of that role;
6. outline the structure of the legal profession in England and Wales and explain its role in the delivery of legal services;
7. explain the doctrine of precedent and demonstrate how precedent operates in a common law legal system;
8. identify the primary rules of statutory interpretation and recognise how these relate to the role of judges within UK constitutional arrangements;
9. identify the principal features of a case report and analyse the judicial reasoning in a case;
10. construct legal arguments on behalf of a hypothetical client;
11. identify accurately issues that require researching;
12. access, evaluate and use effectively information for a research task.

Generic transferable intellectual skills

When presented with a proposition or a set of facts raising legal issues, a student will be able to:

1. identify and prioritise the significance of legal issues explicitly or implicitly raised;
2. conduct effective research on the primary and secondary issues of law raised, recognising the relative authority of sources;
3. evaluate, on the basis of research, the significance of law in its social context;
4. identify, through research into primary and secondary sources, the principal arguments for and against a proposition;
5. assess the strengths and weaknesses of arguments relevant to a proposition;
6. use arguments to present a considered conclusion to the issues raised;
7. give an independently and individually research presentation on an assigned topic.

Keyskills

At the end of this module, students will be able to:

1. demonstrate basic skills in oral advocacy;
2. present a research topic orally, making accurate and effective use of language;
3. present written material in a style appropriate to the task set and to its target audience;
4. evaluate and discuss the moral, social and economic implications of current legal issues;
5. analyse and discuss primary legal materials in oral and written form;
6. make effective use of the world-wide web, e-mail, electronic databases and computer assisted learning packages;
7. perform effectively in a group mooting exercise.

Cardiff University Appendix D: Communication Skills and Project Management – module aims and learning outcomes

N.B. Aims and learning outcomes associated with information literacy are underlined

Aims of the module
(Aims define the broad purpose of the module)

This module aims to provide students with:
An elementary understanding of the issues involved in project management and some basic skills to manage software development projects;
<u>Basic transferable skills for use both during and after their degree course;</u>
An insight into the effects of computer viruses and some ways of protecting against them.

Learning outcomes of the module
(Learning outcomes are statements of what a typical student is expected to know, understand and be able to do)

On completion of the module a student will be expected to be able to:

Knowledge and understanding:

Describe the difficulties associated with software project management;
Illustrate the main activities involved in project management;
Recognise the symptoms of a virus and understand its mode of action;
Be aware of potential sources of viruses and understand how to protect against virus infection;
Understand the differences between viruses and trojans;
Understand the importance of being in control of the machine when looking for viruses.

Skills:

Analyse a project and identify tasks;
Use computer tools to produce project plans;
<u>Write well structured, referenced reports to effectively communicate the outcome of project work;</u>
<u>Use documentation preparation software to produce project reports;</u>
<u>Plan and give an oral presentation to small groups using a variety of presentation aids;</u>
Write a targeted CV.

University of Southampton

Wendy White, Faculty Liaison Librarian, Law, Arts and Social Science

Background: University of Southampton, Library

The University of Southampton received its royal charter in 1952 but has its roots in the Hartley Institution which was founded in 1862. It currently has around 20 000 students studying a full range of subjects across Science, Engineering, Arts, Social Science, Law, Humanities, Medicine and related health disciplines. The University is research-intensive and is a member of the Russell Group. The library service includes seven site libraries at locations in Southampton and Winchester. It is not part of a converged service, but library staff work closely with colleagues in Student Services, Information Systems and Services and the Educational Development Service as part of an overarching Professional Services group. There is a strategic commitment by the University to embed skills in the curriculum and to monitor students' skills progression.

Development of information literacy

The University of Southampton like many institutions supports a diverse range of students with different degree pathways. Because of the resultant diversity of curricula it has not seemed appropriate to take a generic approach to the development of information literacy. Skills development is embedded in the curriculum and therefore cannot be separated from the acquisition and application of subject knowledge. This paper presents one of many active models where library staff define relevant learning outcomes and are responsible for ensuring that these outcomes are met. Students undertake a mixture of formative and summative assessment. It is not presented as "best practice" but as a model which has worked well for us.

Model overview

Learning outcomes that relate to information literacy are part of learning outcomes attached to specified course units in years 1, 2 and 3 of politics undergraduate study. Library staff identified core competencies for each year. This was achieved by mapping the SCONUL 7 pillars model to the skill requirements of both the University of Southampton politics curriculum and those identified by the Quality Assurance Agency (QAA) subject benchmark statement for Politics and International Relations (see Appendix A). These target competencies then formed the basis of a 3 year learning framework with classroom focussed support in all years of study. Each of the course units also focuses on substantive areas of subject knowledge acquisition and application. Students in years one and two participate in classroom based formative methods of assessment. Second and third year students may have additional support depending on their options e.g. the Social Issues in European Politics course requires use of specialist EU publications and sources. In year three students undertake a pilot literature review for their dissertation where analysis of their topic, resource identification, search technique and referencing are all assessed summatively by library staff (see Appendices B and C). The aim is to take a "building blocks" approach to skills progression.

Drivers for change

Elements of this approach had been introduced incrementally as information skills support to a number of our academic departments. The Department of Politics were yet to work with the library on the development of students' skills so we took the opportunity to offer them a comprehensive model of activity.

The Department was receptive to the model for a number of reasons:

• They were about to undergo a QAA subject review and skills development was seen as a possible area of weakness;
• The politics curricula were being substantially revised and as such a large scale revision is a fairly major undertaking it was a timely opportunity to embed skills development;
• The Department has a fairly small number of staff and the load on each can seem onerous, so the idea of working in partnership to enhance the student's experience with little additional burden on academic staff was positive.

Learning activities

As the students are all based on campus the use of classroom-based activity is fairly traditional but fits in with the overall programme where lectures and seminars are still the mainstay of activity. Formative activities include quizzes and problem-solving activities which the students mark themselves in class. Self-reflection and peer discussion are encouraged. We have experimented with the use of Blackboard to deliver formative exercises with built in feedback to be completed outside class. However in this traditional framework students have not been motivated to participate despite clear backing from academic staff. The summative dissertation work is designed to formalise the literature search and provide a clear indication of their level of attainment towards the end of their degree programme. This piece of work can also be used as a basis for a tutorial with their dissertation supervisor.

Library staff development

To deliver this model there were many areas for library staff development. Involvement in the informal and formal processes of the Department/School was key, particularly to develop our own knowledge base in areas such as curriculum development, marking procedures and quality assurance guidelines. We have found that informal links with academic colleagues have been very useful. Participation in formal School/Faculty meetings to keep in touch with important discussions and decisions has proved more of a challenge. However a recent University restructuring which has moved from many Departments into a smaller number of Schools has provided an opportunity to improve formal communication.

Building a sound pedagogic platform including knowledge of learning styles is an ongoing area of improvement. Close links with staff in the University Centre for Learning and Teaching, and with the Faculty Learning and Teaching Co-ordinators who work with the Schools on enhancement projects, have helped us develop a culture of shared learning. However we still feel that there is room for substantial improvement in this area.

Evaluation

Students have an opportunity after each class to comment, both by evaluating the learning environment and through a self-assessment of their own learning. A summary of all the responses is sent back to the academic unit tutor which informs discussion about enhancement. Students also get a chance to comment in their end of unit evaluations. Informal feedback from academic staff indicates that the range and quality of resources used by the students has increased. Clearly many factors impact on the learning process so it is difficult to make simplistic deductions, however staff have been very positive about the worth of this approach. The response from students has also mostly been positive.

Future development

The national picture of information literacy development in Higher Education seems to be one of piecemeal pockets of success. Our experience at Southampton has been no different. This is just one of many models that we use. We also run a 10 credit unit which specifically focuses on information literacy skills which is delivered through Blackboard. Our next challenge is to retain our flexible support of different student pathways and learning styles but to achieve greater integration of activity as part of multi-professional teams. We are some way off a truly team based approach but hope that by building links with academic staff, learning technologists and educational developers, we have built a foundation for progress.

University of Southampton Appendix A

Competency statements with mapped learning outcomes for years of study

Competency	Level 1	Level 2	Level 3	Mapped Learning Outcomes [Level]
Retrieval	Able to retrieve information from core sources using simple searching.	Able to retrieve information from topic specific sources using simple searching	Able to retrieve information from a wide range of sources in politics and related areas using complex searching.	Access Web of Science and IBSS [1] Conduct a simple search [1] Conduct a complex search [2,3] Formulate an effective search strategy [2,3]
Analysis	Able to compare and critically evaluate information sources and analyse information retrieved.	Able to compare and critically evaluate information sources, analyse information retrieved and demonstrate a self-reflective approach to information searching.	Able to compare and critically evaluate information sources, analyse and synthesise information retrieved and demonstrate a self-reflective and independent approach to information searching.	Identify and analyse a journal article abstract [3] Compare and critically evaluate 2 internet sources [1] Compare and critically evaluate an internet search engine and a subject gateway [1] Critically evaluate the context in which the documentation has been produced [1,2,3]
Bibliographic knowledge	Able to identify monograph and periodical bibliographic references and locate these items in the University libraries or electronically as	Able to identify a range of bibliographic references and locate these items in the University libraries or electronically as appropriate.	Understands the context of academic publishing, able to identify a full range of bibliographic references and locate these items in	Locate items on reading list by type of material [1] Locate items in the library [1]

	appropriate.		the University libraries, electronically or externally.	Locate relevant full text electronic journal articles [1] Locate relevant information on the internet [1] Understand different publishing formats and processes [2,3]
Subject knowledge	Able to identify core information sources in Politics.	Able to identify topic specific information sources in Politics.	Able to identify a wide range of sources in Politics and related areas and utilise knowledge of political concepts to develop complex search strategies.	Identify sources of current political information and opinion [2,3] Identify relevant subject and material specific databases [2,3] Identify and locate UK and EU Official Publications [2,3] Identify and locate documentation from international organisations [2,3] Identify and locate relevant data sources [2,3]
Presentation	Able to cite monograph and periodical bibliographic references correctly.	Able to cite a range bibliographic references correctly.	Understands the academic context of different citation styles and able to cite a full range of bibliographic references in an appropriate style.	Cite references correctly using the Harvard style of referencing [1] Cite a full range of references using the Harvard style including electronic publications and grey literature [2,3]

University of Southampton Appendix B

Marking guidelines for the year 3 summative assessment

		A	B	C	D	E	F
Project	Explanation & scope	Full explanation with clear understanding of search implications	Good explanation with some awareness of search implications	Reasonable explanation but no implications for search identified	Explanation fails to indicate focus of search	Minimal details (e.g. title only)	Little or no indication of topic
Search	Databases - range and appropriateness	Wide range of relevant sources, including some not covered in the session	Fairly wide, mostly relevant choice of sources	Key databases only searched	Few sources used, omitting at least one key database	Very few relevant sources, omitting key databases	Few or no identifiable relevant resources
	Search terms – incl. appropriate use of synonyms	Wide range of terms used displaying imaginative use of synonyms and effective use of any available thesauri	Relevant search terms including synonyms	Limited range of terms, little evidence of strategy or synonyms	Few relevant search terms, omitting some key terms	Very few relevant search terms, no evidence of synonyms, significant omission of key terms	Few search terms, most of which are irrelevant to topic
	Operators & symbols (Boolean etc), terms correctly combined	• Wide range of search operators • Correct use of truncation & wildcards • Limiting search by field if relevant • Alternative spellings will be taken into account • Boolean operators used effectively	• A range of search operators inc. correct use of truncation • Boolean operators employed, for the most part, effectively	• Limited use of search operators, though most used correctly. • Evidence of an attempt to use Boolean operators displaying a limited understanding of their operation	• Only a few search operators used • Significant omission of the use of key search operators. • Some chosen may be used inappropriately. • Little evidence of Boolean	• Few search operators used and terms may not be combined effectively • Significant omission of the use of key operators • Most of those chosen used inappropriately	• Few or no operators • Any used employed inappropriately.

Results				operators		
Relevance and range of the references found	• Relevant references covering major and broader aspects of the topic from a wide and relevant range of resources	• Relevant references covering major aspects of the topic from a good range of resources	• Mainly relevant references covering the main topic from the major resources	• Some relevant references from a limited range of sources	• Inadequate number of relevant references • Poor range of resources	Poor relevant, range, number of references
Complete and correct citation of references	Thorough understanding of referencing citations through clear, consistent and correct citation of references attributed to the correct source	Good understanding of referencing citations through clear and consistent references attributed to the correct source with no more than minor errors	Basic understanding of referencing citations mainly attributed to the correct source but with persistent errors	• Basic understanding of referencing citations • Likely to be significant omissions with some attributed to an incorrect source	Limited understanding of referencing citations with serious omissions making it difficult to retrace some of the references	Poor understanding of referencing citations making it unlikely to be able to retrace many of the references

Overall Mark - ☐

University of Southampton Appendix C

ASSESSED ESSAY MARKING AND FEEDBACK FORM
[returned to students]

HIGH QUALITY INDICATORS	RATING OF PERFORMANCE					POOR QUALITY INDICATORS
	Excellent	Good	Competent	Weak	Poor	
Clear description of topic and strategy						Inadequate description of topic and strategy
Wide range of relevant databases						Poor range and relevance of databases
Wide range of relevant search terms employed						Poor range of relevant search terms employed
Use of full range of appropriate search techniques						Use of few appropriate search techniques
Relevant references found covering all aspects of topic						References found have weak relationship to topic
References recorded accurately and consistently						Persistent errors made making it difficult to retrace references

COMMENTS AND ADVICE

RECOMMENDED GRADE | **MARKER** Wendy White

University of Wales, Newport

Lesley May, Head of Library Services and Information Librarian, Humanities and Science

Background: University of Wales, Newport's Library and Information Services

The University of Wales, Newport is, from 2004, a Constituent Institution of the University of Wales. We are made up of two campuses, both very attractively situated, one in a residential area of Newport at Allt-yr-yn and the other on the outskirts of the city at Caerleon. We have plans for an exciting new city centre campus in the centre of Newport alongside the River Usk, which will contribute to the development of Newport as a city, a status which was only acquired in 2002.

The University has provided higher education for more than eighty years, but our roots go back even further to 1841. We have an excellent and long established record of widening access to higher education. We very much serve the local community with nearly 70% of our students being recruited from the former county of Gwent and the rest of Wales; approximately the same percentage study part-time. The student body is largely mature, with the 30+ group making up nearly 60% of the total. The majority of students study for professional or other qualifications, with 36% studying for a first degree.

Evolution of the Communications and Information Technology (CIT) Module

Appointed to my post in 1991, I am one of the Information Librarians for the School of Humanities & Science. It is a multi-disciplinary School offering ten subject pathways. In some form or another, therefore, since 1991 I have been involved in teaching Humanities & Science students how to use the library. In those early days, teaching staff would book sessions with me and I would demonstrate how to use the catalogue – it had just gone on-line – and the British Humanities Index, in paper form. I also remember leading sessions on searching techniques.

In the late 90s, the School decided to look again at how Study Skills, as they were then called, were taught. A 10 credit component on Study Skills was introduced, to include 1) Introduction to library information systems 2) Information technology and 3) Introduction to studying. There was a 14-point assignment brief that students had to tick off as each point was achieved. My brief was to cover Introduction to library information systems - which was actually a wider brief than it sounds. I was given a three hour session over several weeks in which to achieve the objectives.

I always thought the sessions went very well (this was before the time of evaluation forms). Sessions took place in the library and students went to the shelves to look at where they could find books and journals. I taught them the basics of the institution approved Harvard Referencing system, how to construct a search and gave them handouts which they could refer to at a later date. The problem was that the 10 credits were additional i.e. students could miss the sessions and still gain sufficient credits to enter Year 2, so they didn't attend in sufficient numbers. It also was not embedded enough, there was simply a sentence which stated, 'You should endeavour, whenever possible, to build the evidence from your normal subject work rather than as a paper exercise or in isolation from a subject/module context.'

I followed this pattern of teaching for two or three years then the School decided to take a different path. Aware that the subject needed to be embedded into the curriculum, lecturing staff attempted to do just that, but they didn't involve us in any of the discussions concerning the content or the teaching of the sessions. From our point of view therefore, it was a disaster.

Tasks were set for students that included carrying out a literature search using CD ROMs, but they had not been taught how to use the CD ROMs. So students came to the Information Desk in large numbers, and if there were time we would take them off in groups and give them a demonstration, or show each student on an individual basis.

Development of an accredited module

Meantime discussions were continually taking place between the Dean of Humanities & Science and Library Services on how to improve the delivery of Study Skills. I think the turning point came when I was asked by the Dean of School, Humanities & Science to provide sessions for Sports Studies students on how to search Sport Discus. The sessions were written by several Library Services colleagues and were delivered by members of Library Services staff. We extended the brief to include creating search strategies, searching electronic resources, how to evaluate them and the use of email. We held the sessions in the Computer Suites so each student had access to a computer. They proved to be a success.

Having seen what Library Services staff were capable of – it's a sad fact that we need to be continually promoting our abilities – and that the School had to address the issue of retention, it was decided to run, as a pilot, the Information and Communication Skills Module in the 2003-2004 academic year. The Module was to be made up of 4 elements: Information Skills, IT skills (specifically the ECDL), Study Skills and the Personal Development Plan. A small team consisting of library and teaching staff met to draw up the Module descriptor. The Module was to be 20 credits, delivered over two semesters. For details of the Module, see appendix A.

The Library Services brief was to deliver the Information Skills component of the Module; further staff in LIS and the Careers Service delivered the other sessions

Development of the module outline and the learning outcomes

From my past experience we had a good idea of what we wanted to deliver and how we wanted to deliver it. There was some understandable resistance to the Module from Library Services staff who had their 'own' Schools to support. The offers of payment by the School came to nothing and there was no alleviation of time from other duties. Subsequently I did much of the preparation and all of the teaching myself, though colleagues helped me to prepare PowerPoint presentations and I drew heavily on existing material that had been used previously for Library Induction sessions. In addition I found the Open University's course U120, *MOSAIC: making information accessible in the information age*, invaluable.

Once the rationale had been written for the Module, the next step was to create learning outcomes. This was done in collaboration with colleagues from the Centre for Learning Development, a sister department within Library and Information Services. They provided brief tutorials on what learning outcomes are and then helped with the wording of the final version. The ones we came up with are included in the attached module descriptor. It was difficult to think in terms of how assessment could be linked to learning outcomes, since we had never had to think about this before; it was very much like learning a new language. It was further complicated by the fact that the academic staff would be carrying out the assessments for the subject disciplines, and the outcomes for this Module would be assessed through those, to ensure that they were truly embedded into the delivery of the subject.

Delivery and evaluation

I delivered three two-hour sessions in the first semester to each group and two two-hour sessions to each group in the second. As there were six groups I was pretty well word perfect at the end.

Unfortunately, the venture was not judged a great success by us, the students nor the teaching staff, who were, and still are, very much against the idea. Part of the problem lies in the fact that the module was adopted by the School as a means of improving retention rates, but these have not (yet) noticeably changed. Additionally it was simply not embedded sufficiently into the curriculum. In spite of the fact that it is a 20-credit module, attendance could have been better. The following areas are currently being addressed by ourselves and the School, which should lead to a considerable improvement next year:

• The lack of participation by Humanities & Science teaching staff to engage in the process. They were very wary of the whole concept and remained largely negative throughout. The implications of this became more apparent as the weeks went by as they didn't make it clear to students which assignments were to be the ones where the Module's skills were to be assessed, which in turn made it difficult for me to tailor sessions. The Dean of School has committed herself to the success of this Module and has given all first year tutors substantial remission time to dedicate to it next year.

• Whether we as deliverers of the Module should be involved in the assessment will have to be considered.

• An initial lack of a Module Leader hampered the progress of integration; this has now been rectified.

• Lack of a Module Handbook meant that neither students nor teaching staff were able to see what it was we were trying to achieve. In addition students were reluctant to access the resources on a website. Next year we will provide both a handbook and a dedicated website;

• It is currently called the Communications and Information Technology (CIT) Module, but I personally feel it needs a further name change to better reflect the Information Skills/Literacy content.

• Some lack of co-ordination between ourselves, the team who delivered the Module, will need to be addressed.

• Some students had attended Access courses prior to coming to Newport and claimed they did not need any further teaching in these subjects. Our thoughts here are to assess each student at the start of their course.

• The module needs to be marketed to the School as an indispensable part of the Humanities and Science curriculum, and not merely as a means of improving retention rates.

Conclusion

We still remain, however, with the situation that the School is a diverse one with ten subject strands. To keep the group sizes at realistic numbers we had to combine subjects, so that Sports Studies students were sitting alongside Archaeology students. Therefore, to provide a 'targeted' session to tie in with assignment briefs was difficult. We are going to have to give serious thought as to how we address this in future; maybe our sessions should be included as and when, to fit in much more closely with lectures, rather than delivered in standalone blocks.

I was, and still am, keen for the sessions to take place as much as possible in the Library's training area, so students can be set tasks to find material on the shelves, but my experiences this year have made me realise that some sessions should take place in the Computer Suites. With teaching staff now with additional time to devote to the Module and a useful 'blood-letting' meeting having taken place, I have hopes for the future.

University of Wales, Newport Appendix A: CF4/DS9: Module Validation/Review Summary Sheet

Module Title	Information and Communication Skills
HESA Cost Centre	
Module Leader	
Staff Ref No	
CATS Tariff	20
CATS Level	4
HESA Subject Code	
Campus Module taught on e.g. Caerleon	Caerleon
Percentage of module not taught at UWCN e.g. 100%	0
If course is taught externally please name other institution(s)	N/A
Franchise Centre (if applicable)	N/A
HEFCW ASC	7
Deleted Module Titles	N/A
Programme(s) that modules are attached to	Compulsory ('Y'/'N') Yes BA/BSc Honours, Humanities & Science
Professional Body Accreditation/Exemption	
Contact Hours	**60**
Directed Studies Hours	**80**
Independent Studies Hours	**60**
Mode(s) of Attendance in which offered	**Full & Part time**
Pre-requisites	**N/A**
Co-requisites	**N/A**
Semester(s) in which taught	**1 & 2**
Anticipated Number of Students	**175**
Session of First Enrolment	**2003 - 2004**

1. Rationale

This module will be an important constituent of the compulsory Year 1 Humanities and Science programme and will be included in the new portfolio structure of the School. It will provide a generic approach to library and information skills, use of IT and communication skills.

This course has been developed in recognition of the need for all students to be able to find, use and handle information effectively, particularly in an electronic environment and in the 'information society'. It adopts a broad approach to information handling, including the use of IT skills to search for information, to store it and to present the results, whether in a written assignment, in a presentation or as part of a group exercise. The module also includes guidance on the evaluation of all kinds of information, but with a particular focus on material published on the Internet. The module is intended to run in parallel with Humanities and Science subject modules, with assessment points timed to ensure that students develop the appropriate expertise at the same time as they need to apply it to their studies of the discipline.

2. Aims

The aims of the module are to:

1. Gain an overall understanding of information resources
2. Produce and manipulate information electronically
3. Present information in appropriate formats

3. Learning Outcomes

By the end of the module students will be able to:

1. apply appropriate search techniques and strategies for the identification of relevant resources;
2. evaluate the content and validity of the information retrieved in the context of one or more disciplines;
3. illustrate the nature of plagiarism and the need for bibliographic referencing;
4. demonstrate competence in IT by completing the ECDL course;
5. identify their learning style and apply appropriately;
6. construct coherent arguments to meet a required task e.g. writing an essay/ compiling a report;
7. construct Personal Development Profiles to identify transferable skills.

4. Indicative Content

The module will consist of three distinct but overlapping elements, IT Skills, Information Skills and Communication Skills.

The IT skills element will address:

Being able to login to the UWCN network; use email, the Internet and general office packages such as word processing, spreadsheets and databases; use a computerised bibliographic reference management package.

Acquiring the skills and completing the tests for the European Computer Driving Licence qualification.

The debate surrounding the ethical issues of using IT, including acceptable practice and pla-

giarism, and the principles of Data Protection and Copyright law.

The Information skills element will address:

The use of an institutional library and its resources to support discipline-specific studies, devising a search strategy and performing 'literature searches' to whatever depth and complexity required for a particular curriculum/discipline area; production of accurate references in the Harvard style.

Knowledge of how information in the wider world is acquired, managed, disseminated and exploited. Use of primary and secondary sources specific to the discipline.

The Communication skills element will address:

Planning and structuring written work and presentations. Also general study skills, such as planning workload, managing stress, revision techniques. Construction of Personal Development Profiles.

5. Learning and Teaching Strategy

Lectures will be used to introduce and develop ideas to support the Information Skills and Communication Skills elements;

Practical Workshops using demonstrations followed by hands-on training will be used to introduce new techniques and develop technical skills to support the IT Skills and the Information Skills elements;

Online services (VLE) will be utilised throughout the module to provide support;

Peer Critiques will be used throughout the module to develop presentation skills, to reinforce group cohesion and to provide regular formative evaluation;

Seminars will be used throughout the module to introduce and discuss aspects of theoretical interest, to set ideas in context and to further develop students' skills in presentation and analysis;

Group Tutorials will be used throughout the module to enable students to manage their own learning needs through formative feedback;

Personal Tutorials will be used throughout the module to provide pastoral support.

6. Assessment Requirements[1]

All assessments are to be completed on a pass/fail basis.

> 1. Using appropriate search tools and methods develop a list of references that can be utilised for the assignment in your selected subject area. Create a plan for this assignment and discuss it, together with the reference list, with the module tutor during reading week in Semester 1.
> 2. Submit required ECDL assessments on line.
> 3. Complete and submit progress file reports via the VLE.

7. Indicative Reading[2]

See below.

8. Professional Status

The European Computer Driving Licence® (or ECDL) is the European-wide qualification which enables people to demonstrate their competence in computer skills. There are career advantages in being able to state on a Personal Development Profile or job application that the ECDL has been obtained.

9. Student Evaluation

Student feedback will be elicited through:

1. Qualitative and quantitative students evaluations completed at mid and end points of the module using the School of Humanities and Science standard module feedback questionnaire,
2. Personal tutorials,
3. On-line questionnaire.

Module Indicative Reading List

Please list, in accordance with Harvard[3] referencing conventions (author, date, title, place, publisher.) the essential and supplementary reading materials appropriate to the module. Please also list any other learning resources which students will be expected to utilise in following the module. .

Essential Reading Materials

Bell, J. 1999. *Doing your research project: a guide for first-time researchers in education and social science*. 3rd edn. Milton Keynes: Open University Press.

Cottrell, S. 1999. *The study skills handbook*. Hampshire: Palgrave.

Northedge, A.1990. *The good study guide*. Milton Keynes: Open University Press

Rose, J. 2001. *The mature student's guide to writing*. Hampshire: Palgrave.

Wareing, S. 2001. *How to study successfully*. 2nd edn. Newport: University of Wales College, Newport.

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[1] Module Leaders should ensure that the assessment requirements of the appropriate validating bodies (University of Wales, BTEC, QCA(NCVQ), TDLB) and professional institutions will be met by the conditions stated in this section. If the module contributes to a BTEC award-bearing programme, see note 2 above.

[2] Module Leaders should ensure that listed reference material is available by checking the Library Catalogue and the Library's collection of CD-ROMs. Module Leaders should also maintain lists (at least annually) and submit any amendments for approval via the Incremental Change procedures of UWCN, ideally as an outcome of the Annual Monitoring and Evaluation Exercise. They should also ensure that the most up-to-date lists are provided to partners, including franchise partners.

[3] Please refer to the document "Making References and Compiling Bibliographies" produced by UWCN's Library and Learning Reources.

Supplementary Reading Materials

Other Learning Resources

Learning Essentials, Newport's own learning portal designed to support students with their study skills.

RDN Virtual Training Suite, a set of online tutorials designed to help students improve their Internet information literacy and IT skills, at **http://www.vts.rdn.ac.uk/**

SAFARI, Skills in Accessing, Finding and Reviewing Information, the Open University's guided tour through the information world, at **http://sorbus.open.ac.uk/safari/signpostframe.htm**

University of Bradford

Grace Hudson, Deputy University Librarian (Academic Services)/EDC Librarian

Background: University of Bradford Library

The University of Bradford currently has c.10,000 students. Of these, some 7,700 plus are full-time and over 2,100 part-time. There is a similar split between undergraduate and post-graduate numbers. Though exact statistics are not available for 2003/04, there are growing numbers of distance learners. The Library forms part of the converged Learning Support Services. The subject librarians in the Academic Services section are responsible for the provision of information skills sessions to their academic departments.

Policy development

Subject librarians at Bradford have the delivery of information skills teaching as a core element of their roles. However added impetus was provided by the development in 2000/2001 of the Excellence PLUS policy as part of the University of Bradford's Learning and Teaching Strategy. Excellence PLUS aims to identify and develop key skills on entry, embed key skills into the curriculum and develop key skills for the future. All Departments are expected to implement the policy. They may be able to demonstrate that they are already doing so, they may develop their own strategies for putting it into practice or they may buy in to the specifically designed Information Skills module, which has been developed jointly by the Computer Centre and the Library. The pilot module was offered initially to Departments in the School of Social and International Studies (SSIS) in 2001/2002 with the idea of rolling it out to other Schools in due course, though in practice this has only happened to a limited extent. The development of the Information Skills module in response to Excellence PLUS coincided with the convergence of the Library and Computer services. The closer working relationships that resulted have benefited the development of the module, which has continued to be delivered to SSIS in 2002/2003 and 2003/2004 after review and refinements.

Content development

While the Computer Centre element of the syllabus is generic and the Library input is defined in general terms, the Library sessions are in practice tailored to the specific subject groups when delivered, so both the examples and the databases and other resources used are relevant to the subject areas studied by the students. The module syllabus was initially developed in conjunction with the academic staff of the relevant departments within SSIS and with staff from the University's Teaching Quality Enhancement Group (TQEG) involved in the implementation of the Excellence PLUS policy, who were able to provide guidance on mapping the content to the appropriate level of key skills. The module initially went through the module approval route of the School for Lifelong Learning, where TQEG resides. As it is provided to SSIS, it now has approval as a SSIS module and will be revalidated at the appropriate time when the School's provision is reviewed under the normal quality assurance and course continuation procedures. Should other Schools wish to take up the module, the School Course Approval Team will consider quality issues before it is first incorporated into an academic programme but it will not have to go through a further approval procedure if other departments within the School subsequently wish to use the module. Within Learning Support Services (LSS), there is now the LSS Module Working Group, which has delegated authority from the LSS Board to consider modules delivered in whole or in part by LSS staff and authorise new modules or revisions to existing ones before forwarding to Academic Policy and Standards.

Initial delivery and evaluation

In the first year the Information Skills module was delivered to c.200 students on a face to face basis. In later years the numbers increased to 250+ and delivery was through the Blackboard VLE together with face to face sessions in groups of up to 90. Summative assessment was marked jointly by LSS and academic staff. Feedback informally and through the module evaluation questionnaires was mixed with some students resenting especially the IT content, which they claimed they had already covered at school. (In practice many later admitted that they had in fact enhanced their skills, which did not prove to be of the standard they had originally considered.) We are looking at better diagnostic testing with students then being directed to develop the areas that require further work. Others responses were extremely positive about the benefits, especially those from mature or non-standard entrants. Some material was cut out to give more time to cover other areas better: it is tempting to try to cram in too much.

Assessment methods

Despite efforts to demonstrate the relevance to their studies, in particular through the tailoring of the library content, and the linking of the module to another one on Learning Strategies or Study Skills, many students did not make the connection between skills learned and how they might apply them in future. As a result modifications were made to assessment methods to try to emphasise the transferable nature of the skills. The original idea of creating a portfolio proved very time-consuming to mark and was open to plagiarism. The assessment mode now - in addition to coursework and a practical session - is a reflective statement where the students are asked to consider how the skills they have acquired will benefit them in their future studies. The work must be word processed and well laid out using style sheets, and it should also include bibliographic references. It is assessed both for content and for presentation. We would also like to do further work on developing better formative assessment, but on the whole we are satisfied that the amount and level of content is now appropriate at this stage. Although the Library did provide information skills sessions to SSIS students before, the module approach has ensured that we have adequate timetabled sessions which are clearly publicised and which the students are expected to attend. This is more satisfactory than additional library sessions often perceived as optional.

Postgraduate module

Departments which have not subscribed to the IS module have in some cases developed ones which suit their specific requirements or have incorporated information skills at appropriate points within other subject modules in the academic programme. In many cases these modules have already been running for some time. One example of this is the Graduate School Research and Scholarship Skills module, which has a large contribution from the Library (agreed with the Graduate School staff) but is "owned" by the Graduate School. This forms part of the taught element of the doctoral programme, leading to M.Res.

Examples of learning outcomes

Though not an exhaustive list, examples of this and other module descriptors - including learning outcomes - are attached for Level 1 and Level 2 undergraduate modules, and for postgraduate Master's level. The benefit in these cases from the students' perspective is that information literacy skills are more clearly embedded in the curriculum.

University of Bradford Appendix A: Examples of Learning Outcomes including Information Skills.

A sample of the complete first and second module outlines are in Appendix B:

Undergraduate Level 1 module: Information Skills

Learning Outcomes:

1. Knowledge & Understanding
Plan how to obtain and use information to fulfill a specific purpose in their chosen area of study

2. Discipline Skills
Implement their plan by using a variety of appropriate sources and techniques to search for and select relevant information.

3. Personal Transferable Skills
Explore, interpret and exchange relevant information, using appropriate procedures to derive new information where necessary. Review their progress to establish evidence of achievement and to identify areas for improvement in relation to information skills.

Graduate School M Res Module

Learning Outcomes:

1. Knowledge & Understanding
1. Understanding of the nature and culture of independent postgraduate research.
Understanding of the ethical issues likely to arise in research.
2. Discipline Skills
2. Grasp of the bibliographic resources, both electronic and paper-based, and searching techniques used in the specific discipline and in the social sciences more generally. Responsible use of information and citations.
3. Personal Transferable Skills
3. Training in time management and project management. Enhanced skills in academic writing and oral presentation relevant to the graduate's research work.

Undergraduate Level 2 Module – Politics

Learning Outcomes:

1. Knowledge & Understanding
Students will be familiar with the demands of UG research and the main IT-library facilities available at the University.

2. Discipline Skills
They will develop skills in accessing, retrieving and synthesising information relevant to research to be presented in the format of long essays and dissertations.

3. Personal Transferable Skills
They will also develop their ability to construct reasoned arguments and present empirical evidence. Through completion of the module students will develop self-organisation and research management skills.

Undergraduate Level 1 module - Environmental Science

Learning Outcomes:

1. Knowledge & Understanding
Demonstrate an appreciation of the need for, and undertake, careful observation taking in the field & lab as a key element for developing knowledge and understanding.
Recognise the importance of maintaining a safe working environment;

2. Discipline Skills
Undertake field surveys and demonstrate competency in using basic field equipment under supervision and perform a range of basic analytical procedures.

3. Personal Transferable Skills
Report field observation and measurement via notebook and lab work via lab books, involving graphical, numeric and written data presentation in a clear and concise manner; demonstrate competence in basic library and computer usage.

Undergraduate Level 1 module - Archaeological Science

Learning Outcomes:

1. Knowledge & Understanding
1. Understanding the role of key individuals and archaeological sites in the development of the discipline. Knowledge of appropriate information technology, numerical and statistical methods.

2. Discipline Skills
2. Understand and use the basic mathematical manipulates necessary for modern archaeology, and understand and use statistical techniques applicable to archaeological data.

3. Personal Transferable Skills
3. Use the library and computer network to find information, write and correctly reference an essay, critiques, scientific reports, and produce a project (including producing a research design, analysing archaeological data and presenting archaeological information), use a computer with the Windows interface, use Microsoft Word and Excel. Blackboard, time management, working with others, problem solving.

University of Bradford Appendix B

UNIVERSITY OF BRADFORD

Module Catalogue

Module Title: Information Skills

Module Type:	Skills - study, research, laboratory	**Academic Year:**	2004/5
Module Code:	SIS1000M	**Module Occurrence:**	A
Module Credit:	10	**Teaching Period:**	Semester 1
Level:	1 (Undergraduate)		

Provider: School of Social and International Studies
Related Department / Subject Area:

Principal Co-Ordinator:
Additional Tutors:

Prerequisite(s):

Corequisite(s):

Aims:
To equip students to acquire information skills and understanding appropriate to stage 1 undergraduate level, and aligned with the Key Skills level 3 standards in the National Qualifications Framework. The skills areas included will be communication, IT, Information handling and application of number.

Teaching Strategy:
Seminars, practical PC workshops and self-directed activities.

Study Hours:

Lectures:	0.00	**Directed Study:**	80.00
Seminars/Tutorials:	6.00	**Formal Exams:**	0.00
Laboratory/Practical:	14.00	**Other:**	0.00

Total: 100

Learning Outcomes:

1. Knowledge & Understanding
Plan how to obtain and use information to fulfil a specific purpose in their chosen area of study

2. Discipline Skills
Implement their plan by using a variety of appropriate sources and techniques to search for and select relevant information.

3. Personal Transferable Skills
Explore, interpret and exchange relevant information, using appropriate procedures to derive new information where necessary. Review their progress to establish evidence of achievement and to identify areas for improvement in relation to information skills.

Mode(s) of Assessment:

1	Assessment Type	Duration	Percentage
	Coursework		60%
	Description		
	1000-1500 word reflective statement		
2	Assessment Type	Duration	Percentage
	Examination - practical/laboratory	1	20%
	Description		

	Seen practical examination		
3	**Assessment Type**	**Duration**	**Percentage**
	Coursework		20%
	Description		
	Participation		
900	**Assessment Type**	**Duration**	**Percentage**
	Other form of assessment	1	100%
	Description		
	Supplementary : Repeat seen practical examination and enhance the reflective statement		

Supplementary Assessment:

(Note: 'As Original' indicates that Supplementary Assessment will take the **same** form as the Mode(s) of Assessment.

Outline Syllabus:
Use of Information Technology at Bradford University.Developing a strategy for storing and retrieving personal files.Finding relevant information sources in the Library, on the Internet and from electronic sourcesUse of electronic mail and other IT services to exchange information and ideas with others.Choosing suitable application software and IT facilities to produce well-structured documents and presentations.Storage, retrieval and presentation of appropriate bibliographic referencesStudents will reflect on the development of their skills through the production of a statement on how this module relates to their learning needs in their chosen specialist area of study.

Version No: 1

Module Title: Research and Scholarship Skills

Module Type:	Skills - study, research, laboratory	**Academic Year:**	2004/5
Module Code:	GS-0001D	**Module Occurrence:**	A
Module Credit:	20	**Teaching Period:**	Semester 1
Level:	M (Postgraduate Master's)		

Provider: Graduate School
Related Department / Subject Area: Graduate School

Principal Co-Ordinator:
Additional Tutors:

Prerequisite(s):

Corequisite(s):

Aims:
To introduce research students to the distinctive nature of doctoral level research and how to manage a research project. Also, to introduce students to library databases and how to communicate, both orally and in writing to likely audiences for their research. Supplementary assessment will be by revision and resubmission of the failed component.

Teaching Strategy:
Seminars, group work and discussions, library practical, and directed reading. Practice in oral presentation skills, including a short un-assessed presentation to the group.

Study Hours:

Lectures:	0.00	Directed Study:	130.00		
Seminars/Tutorials:	12.00	Formal Exams:	0.00		
Laboratory/Practical:	18.00	Other:	40.00	Total:	200

Learning Outcomes:

1. Knowledge & Understanding
1. Understanding of the nature and culture of independent postgraduate research. Understanding of the ethical issues likely to arise in research.
2. Discipline Skills
2. Grasp of the bibliographic resources, both electronic and paper-based, and searching techniques used in the specific discipline and in the social sciences more generally. Responsible use of information and citations.
3. Personal Transferable Skills
3. Training in time management and project management. Enhanced skills in academic writing and oral presentation relevant to the graduate's research work.

Mode(s) of Assessment:

1	Assessment Type	Duration	Percentage
	Coursework		080%
	Description		
	A written essay of 3000 words (max).		
2	Assessment Type	Duration	Percentage
	Coursework		020%

An annotated bibliography of 10 pages (max).

Supplementary Assessment:
As Original

(Note: 'As Original' indicates that Supplementary Assessment will take the **same** form as the Mode(s) of Assessment.

Outline Syllabus:
Postgraduate research: form and structure
Institutional, department and student responsibilities.
Ethical issues in research.
Intellectual property rights.
Skills of writing reports, dissertations, theses, and academic papers.
Skills of verbal presentation.
The role of language.
Time management and work organisation.
Use of library, Internet, bibliographies, Web of Science, CD-ROM, official publications, etc.
Introduction to computing and statistics.

Version No: 2

University of York

Susanne Hodges, Information Literacy Programme Manager, Computing Service

Background: ILIAD project

Founded in 1963, the University of York currently has over 10,000 students, 7,200 of them full time students. There are around 30 departments and centres covering a range of subjects in the Arts, Social Sciences and Science and Technology.

In the early 1990s both the Library and Computing Service InfoDesk were experiencing a large volume of requests by students for help with information handling and IT tools. As a result, the Iliad programme was set up in 1994 as a collaborative project between the Library and Computing Service. The impetus for Iliad's development came from staff working in the two services, rather than a strategic move at planning level.

The Library and Computing Service are not converged. However, Subject Librarians and IT Training Staff work closely together to develop Iliad for University.

Originally the University contributed to Iliad's funding, although the programme was expected to recoup costs through charging students a fee of £15 (now risen to £15.50). In 1998 the University withdrew its funding and Computing Service is now responsible for contributing to any shortfall.

Introduction

The Iliad programme is designed to enable students to become proficient in retrieving, processing and presenting information using a computer. The stated objectives of the programme are:

• to provide students with basic transferable information handling skills to make them more effective in their studies

• to provide an awareness of continuing developments in information technology to prepare students for future employment.

The programme consists of two strands - Iliad for University and Iliad for Work. I will concentrate here on Iliad for University, as Iliad for Work - as its name suggests - is based on skills for use in a business context and students use it as a tool for gaining jobs.

Units and aims

Iliad for University consists of the following units:

Unit 1. Computing at York
Aim: To introduce the University of York network.

Unit 2. Researching and Evaluating Information Sources
Aim: To provide background information and practical experience in the use of Library resources and electronic sources of information at the University of York.

Unit 3. Word Processing for Academic Purposes
Aim: To enable full use of a word processing program to produce well presented academic work.

Unit 4. Presenting Information Using a Computer
Aim: To enable the production of visual aids for seminars, tutorials and other presentations.

Unit 5. Using Spreadsheets
Aim: To enable effective use of a spreadsheet package in an academic environment.

The materials are written in-house with an academic slant, in step by step, plain English. The programme is taught by Iliad staff, librarians and a pool of casually employed tutors, mainly postgraduate students.

Iliad for University is administered centrally and may be taken as a taught course or as self study. In 2003/4 the taught programme ran in 3 x 2 hour slots, Monday to Thursdays during weeks 3 to 7 of the Autumn Term and will run once in the Spring and Summer terms. Classes take place in a Computing Service classroom and consist of students from mixed departments. The Department of Chemistry has a timetabled allotted session in the centrally run Autumn Term programme.

Iliad management

Iliad is directed by the Iliad Steering group, consisting of The Director of Computing Service, Head of User Services, Manager of Iliad, Iliad Assistant, Head of Subject Librarians, 2 other Subject Librarians and the Student Education Officer. The Steering Group provides strategic direction and guidance.

The Iliad Programme Manager, along with other supplementary award bearing programme managers at York, reports to the Board of Studies for Supplementary Programmes. The remit of the Board of Studies is to ensure parity of practice in areas such as assessments, employment of casual staff, setting up new courses, etc. The Board reports to Teaching Committee, to which Iliad must also report in the first instance for permission for new courses to be piloted.

Iliad development

Iliad for University is evaluated annually and its development depends upon the following factors:

• annual student evaluations

• annual student focus groups

• annual teaching staff evaluations

• the student skills base

• the rise in departmental skills training

• changes in the technological environment

• tutors themselves who, coming from outside of the centralised Computing Service matrix, give additional input

• the government agenda.

Other recent developments

Due to increased ICT teaching in schools, it has been expected that the number of students taking the centrally run programme will fall. Nonetheless due to government directives concerning skills training in Higher Education, there is an increasing requirement for skills training provision.

In 1999 the programme was reviewed by its departing manager. One of the major review recommendations was that delivery of the programme should not solely be provided centrally but should be diversified. It was also recommended that instead of participating in the programme as a whole, students could plug skills gaps by taking individual units.

As a result of the review recommendations, the Iliad Programme Manager contacted Departmental Computing Officers, whose responsibilities include ensuring that training and support of their departmental staff and students is available. This group has proved to be a particularly effective means of communication within departments, wherein making contact can be notoriously difficult.

The group were thus given an overview of the programme and asked to communicate, where necessary, with people writing training materials within their department, asking why they did not use or tailor centrally provided materials. It has been a disappointment in recent years that several departments have set up their own skills modules, without reference to Iliad. They were informed that Iliad training materials could now be provided via the following options:

• As secured pdf files, which can then be produced and delivered in house.

• As printed materials which can either be delivered in house or by an Iliad tutor.

• As either of the above as the basis for a skills module, with added Computing Service training materials.

Integration into the academic curriculum

From its inception, the department of Archaeology has taken printed Iliad materials and delivered them in house. Students are not required to attend the units but must demonstrate that they have the skills taught. This training is not formally assessed.

The Departments of Education, Chemistry (Research graduates) and Psychology take Iliad materials and deliver them as elements of their un-assessed skills modules. In these departments the programme is used more as a backup than as a primary teaching source.
The Department of Management have integrated the programme and additional materials, such as database systems, into their accredited skills modules. This module is taught by an Iliad tutor.

Iliad has always contributed to the QAA process and departments have gained points because of it.

Librarians, when teaching information searching skills within departments, use the skills taught in Iliad as a pre-requirement for the session. For postgraduates, in some departments, this is part of an accredited course.

Iliad programme leaflet

The 2003 leaflet for the Iliad for University and Iliad for Work appears as Appendix A, with permission of the team.

THE UNIVERSITY *of York*

Computing Service
University Library

Information literacy at York

The Iliad* Programme

1 The Iliad Programme

The Iliad programme is designed to enable you to become proficient in retrieving, processing and presenting information using a computer. The objectives of the programme are:

- to provide you with basic transferable information handling skills to make you more effective in your studies
- to provide an awareness of continuing developments in information technology to prepare you for future employment

The programme consists of two strands:

Iliad for University

Open to incoming students in all disciplines[1], including taught postgraduates, Iliad for University is an introduction to York systems and to information literacy at University level. Although optional, most departments require proficiency in the skills taught on this course.

Accreditation

You will have the option to graduate with University of York certificates showing your areas of expertise. If you are participating in the York Award you will accrue points for each successfully completed Iliad for Work course.

The Iliad Office

The Iliad Office, located in Computing Service, is open from 9.30-12.30 each weekday.

Iliad Programme Manager: Susanne Hodges

Iliad Programme Assistant: Dan Granville

email: iliad@york.ac.uk

http://www.york.ac.uk/services/cserv/iliad/

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1 The Departments of Archaeology, Health Sciences, Management, Physics and Social Policy deliver their own skills training modules.

2   How ICT literate are you?

Before reading any further you may wish to assess your level of competence. Grade yourself 1,2 or 3 for each section as follows:

0 = I have little or no experience of most elements

1 = I have limited experience of some elements

2 = I have successfully used most elements

Managing your files, email and the Web

- manage files by moving, renaming and deleting them
- create folders to store your files
- use menus and dialogue boxes to access computer functions
- manipulate windows on the computer screen
- send and read email messages, adding attachments
- create an address book
- browse the web, use search engines

Rating …....

Electronic Information Sources

- find good quality subject resources using a variety of electronic means
- compile bibliographic references, citing books, journals, electronic resources and web sites following recognised international standards at University level
- use search techniques e.g. finding suitable keywords and combining terms with "And" and "Or" and develop an effective research strategy
- crtically evaluate electronic and printed information resources

Rating …....

Word Processing

- footnotes, and special characters
- present text in the form of bulletted and numbered lists and tables
- change margins, line spacing and number pages
- spell check your document
- move / copy data between the word processing program and another program
- create a table of contents

Rating ……

Spreadsheets

- create and save a spreadsheet
- enter simple formulae to total rows and columns
- move and copy data within the spreadsheet
- create a simple chart
- alter column width and row height
- insert and delete columns and rows
- format data, for example as currency
- move data between a spreadsheet and another program

Rating ……

Presentation Software (Powerpoint)

- create and save slides/overheads
- insert graphics
- apply templates
- run a computer-based presentation

Rating……

7

If your score is **6** or less overall, you may wish to consider participating in Iliad for University.

If your score is higher than **6** but **0** or **1** in specific areas, you may wish to take one or more Iliad for University units separately (see page 4).

8

3 Iliad for University

Aim

To enable proficiency in retrieving, processing, evaluating and presenting information in its many forms using a computer.

Objective

To raise the skills of incoming York students to a common standard of basic, transferable information handling skills to enable effective studies.

Programme Content

Unit 1	**Computing at York**
Unit 2	**Researching and Evaluating Information Sources**
Unit 3	**Word Processing for Academic Purposes (Microsoft Word)**
Unit 4	**Presenting Information Using a Computer (Microsoft PowerPoint)**
Unit 5	**Using Spreadsheets (Microsoft Excel)**

Iliad for University certificate

To gain the University of York validated certificate you must successfully complete an assessment.

Method of Study

Because we recognise that incoming students have different experience of information handling tools, we offer two modes of study: taught and self-study.

Each mode of study uses the same associated unit workbook, designed to cater for a range of skill levels and prior IT experience and containing tasks that mimic information literacy requirements at University level. A detailed description of each unit is provided on pages 5-6.

Taught course

The complete Iliad for University taught course takes place in weeks three to seven of the Autumn Term.

Self study

You may work through Iliad unit workbooks at any time during the year, taking the assessment if you wish.

Cost

Cost of the Iliad for University programme: £15.50

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9

4 Taking separate units

The following units are available in each term:

Unit 2: Researching and Evaluating Information Sources

Unit 3: Word Processing for Academic Purposes

Unit 4: Presenting Information Using a Computer

Unit 5: Using Spreadsheets

Unit 2

This session is likely to be of benefit to all students, as it teaches skills that underpin all areas of academic study.

Unit certificates

Units 3, 4 and 5 each carry a small assessment which earn a certificate detailing the skills learned.

Method of study

You may take any unit either as a taught session or self-study.

Cost

Unit 2: free

Other units: £5.50 each

10

5   Advanced units

The following 2 hour units are also available during the Spring and Summer Terms:

Further Word Processing for Academic Purposes

Further Spreadsheets

Unit certificates

Each unit carries a small assessment which earn a certificate detailing the skills learned.

Method of study

You may take each unit either as a taught session or as self-study. Details of courses may be found on page 7.

Cost

Each unit: £5.50

11

6   Iliad for University Course Syllabus

Unit 1   **Computing at York**

Aim: To introduce the University of York network.

Suitable for: Those with little previous computing experience

Computing at York - an overview	E-mail - an overview
Software, services and facilities available	How to send, read, reply, delete and file messages. How to create an Address Book.
File Management	**The World Wide Web**
How to manage your files effectively.	An introduction to the Web and University of York Web services.

Unit 2   **Researching and Evaluating Information Sources**

Aim: To provide background information and practical experience in the use of Library resources and electronic sources of information, supplying invaluable help with producing work to required University standards.

Suitable for: All students

Library Web Pages	Library Catalogue
Find information about the services of the University Library	Identify and locate items on reading lists and other relevant materials
Finding Information Sources	**Research Strategies**
Finding information on the internet, e-resources and e-journals,	Begin to develop research strategies to use when searching for information for seminars, essays or projects
Evaluating Information Sources	
How to critically evaluate printed and electronic information	

Unit 3   **Word Processing for Academic Purposes**

Aim   To enable full use of a word processing program to produce well presented academic work.

Suitable for: All students – those who have used Word before will learn useful features to improve the presentation of academic work

Introduction to Word	Bullets, Lists, Tables and Tabs
Find your way around the Word screen, create, save and close a document.	Simple tools for formatting text
Editing and Formatting Text	**Writing Tools**
Use appropriate formats, text effects, special characters	Using Spell Checker and Thesaurus, find and replace
Formatting Paragraphs	**Good Practice - including Proof Reading**
Setting paragraph formatting, using paragraph styles	
Formatting Documents	
Creating headers and footers, footnotes and endnotes, page numbers	

1

Unit 4   Presenting Information using a Computer

Aim   To enable the production of visual aids for seminars, tutorials and other presentations.

Suitable for: All students who wish to present their work in a professional way

Introduction to PowerPoint	Creating and Running a Slide Show
Features and tools	Adding transition effects, adding build effects, running and controlling a slide show
Improving the Design of a Presentation	**Inserting Objects**
Slide layout, adding and resizing a picture, using drawing tools	Inserting graphics and charts
Action and Animation	
Action buttons, animation, saving a presentation as a Web page	

Unit 5   Using Spreadsheets

Aim   To enable effective use of a spreadsheet package.

Suitable for: All students who need to analyse and manipulate numeric data in their studies

Getting started with Excel	Presenting a spreadsheet
The Excel screen, creating a spreadsheet, moving around the spreadsheet, entering data,	Changing formats, lines and shading, adding emphasis, inserting/deleting columns and rows
Editing the spreadsheet	**Using formulae**
Inserting and deleting data, moving and copying data, absolute and relative cell addresses, automatically completing sequences	Creating simple formulae, using functions such as 'sum' and 'average'
Graphs and charts	**Preparing to print the spreadsheet**
Changing chart type and format, adding titles and legends, formatting axis and data series, adding trend lines, moving/resizing charts	Changing margins, headers and footers, print preview, printing the spreadsheet

2

7 Advanced units: syllabus

Further Word Processing for Academic Purposes

Aim   To enable further use of a word processing program to produce efficient and effective academic work.

Suitable for: All students

Course prerequisite: Completion of Word Processing for Academic Purposes or equivalent experience

Editing and Referencing Tools	Object Linking and Embedding
Use Word's editing and referencing tools to chart changes and to cross reference within a document	Share and change data in different applications, such as Excel
Graphics	**Styles**
Learn how to use Word's graphic tools effectively	Learn how to create documents based on Word's styles and how to produce your own

Further Spreadsheets

Aim   To enable efficient and effective use of a spreadsheet package.

Suitable for: All students who need to analyse and manipulate numerical data in their studies

Course prerequisite: Completion of Using Spreadsheets or equivalent experience

Working with formulae	Hints and tips
New functions, writing formulae, using the paste function dialog	Using Autofill and Autocomplete and other ways to save time
Further charts	**Multiple sheets**
Creating more advanced charts, appropriate charts for different data	Linking and naming different sheets

Susanne Hodges

3

**Learning Outcomes and
Information Literacy**