Northumbria University	
Periodic Review Report Template	
School	**Computing, Engineering & Information Sciences**
Discipline Name	**Computing**
Date of Review	**20th & 21st May 2009**
Review Panel (approved by University Learning and Teaching Committee)	**Internal Membership** Helen Manns (Chair): Associate Dean (Learning & Teaching), School of Applied Sciences Dr Lesley Twomey: Head of Division of Modern Foreign Languages, School of Arts & Social Sciences Malcolm Scott: Head of Subject (Business Information Systems), School of Computing, Engineering & Information Sciences Deborah Hunt: Students' Union Vice President (Communications & Involvement) **External Membership** Professor Adrian Low: Faculty Director (Resources, Research and Enterprise), Staffordshire University. **Facilitators** Ms Chris Rickelton: Administrative Support to Panel, Academic Registry Peter Fenwick: Administrative Support to Panel, Academic Registry Liz Morrow: Administrative Support to Panel, Academic Registry Sally Iles: Learning & Teaching Support Adviser, Academic Registry
Method of Review	This review was conducted using the periodic review procedure defined in Northumbria's Review Handbook (2008 version), available from http://northumbria.ac.uk/sd/central/ar/lts/review/intrev/

Section 1 — Discipline Aims and Context

This periodic review of Computing considers two of the seven subject areas within the School of Computing, Engineering and Information Sciences (CEIS), namely Computer Engineering and Software and Data Engineering. The subject area of Computer Engineering is further subdivided into two teams, Computer Engineering and Creative Media Technologies, both of which are covered in the scope of this review. Creative Media Technologies was created 2 years ago and is currently a small team but with aspirations to grow.

Computing is a large area of provision with 32 different programmes and a total of 1148 FTEs. It was therefore considered appropriate to focus on a sample of programmes for the review. These were agreed prior to the review commencing by the Panel Chair in consultation with the programme team. The programmes sampled were as follows:

Award & Programme Title	Number of Students			
	FT	SW	PT	FTE
Foundation Degree ICT	100			100
BSc Hons Computer Games and Software Engineering		58		52
BSc Hons Computer Games Design and Production		37		33
BSc Hons Computer Forensics		115		104
BSc Hons Multimedia & Digital Entertainment		61		55
BSc Hons Computer Animation & Digital SFX		13		12
MSc Computer Science	56			55

MSc Embedded Computer Systems Engineering	20			20
MSc Distance Learning MSc Information Technology			43	22

The staffing complement within the Computing area amounts to 43 academic members of staff who are supported by School based Technical and Administrative teams.

The Discipline's aims are to provide a range of high quality, cost effective, attractive and current vocational programmes focused in the Computing area, which equip students with the knowledge and skills that enable them to access a range of career and further study opportunities.

The Discipline is based on split sites with some of the provision and staff being based in Ellison Building whilst the majority is housed in Pandon Building. While the School has aspirations to bring all provision together in one location, this is not likely in the short term. Within its envelope the School has a variety of specialist teaching space, hardware and software.

Section 2 | Curricula and Standards

The Panel identified the following strengths:

- The standard and appropriateness of the content of the provision in meeting the discipline's aims is evidenced by PSRB accreditation, positive external examiner reports and the views of placement and employment providers.
- This is a dynamic discipline that continues to be responsive to new developments in a rapidly changing field.
- The health of the Discipline can be measured by the upward recruitment trajectory seen in recent years.
- The School has excellent facilities for the delivery of its programmes which are well supported by the Technical Support Team.

The Panel made the following recommendations for further development:

- We would encourage each subject area to clearly articulate its vision in a development plan that embraces research, enterprise and the programme portfolio.
- The Discipline should continue with its review of admissions criteria and processes for international recruitment to ensure standards are appropriate and consistently applied. There is a clear need to improve retention rates on some programmes where the international cohort is proportionately high in order to ensure a positive experience for all students, including those remaining on the programme.
- Consider how to promote the 'Computing at Northumbria' brand beyond the region.

Section 3 | Management Information

The Panel identified the following strengths:

- The School's retention strategy is bringing positive results with a significant improvement in School retention rates in recent years.

The Panel made the following recommendations for further development:

- Work with the University in order to ensure the reliability of data and a format that informs the Discipline's decision marking around retention, transfer, performance and employment.

Section 4 | Student Experience

The Panel identified the following strengths:

- Students hold staff in high regard, valuing their enthusiasm for their subject and their accessibility.
- The panel were particularly impressed by the Matrix. This is a clear demonstration of the School's commitment to student support and provides a model that could be transferable to other Schools.
- The Discipline is able to provide a range of placement opportunities which are appreciated by students and clearly enhance their employability. Employers speak highly of the Discipline's students, highlighting their interpersonal and transferable skills as important assets.

The Panel made the following recommendations for further development:

- We support the School's plans for an initial single point of contact for student support and would encourage early implementation. The current range of points of support for students within the Discipline is impressive but may be leading to confusion and uncertainty for those wishing to access help.

Section 5	**Enhancement Strategies**

The Panel identified the following strengths:

- The Discipline is able to evidence an excellent variety of mechanisms in use to disseminate good practice in relation to pedagogy.
- The establishment of a pedagogic research group in the School is to be commended.

The Panel made the following recommendations for further development:

- There is a need to develop a clear shared understanding of what internationalisation means for the Discipline and how this can be embedded into the curriculum.
- The Discipline has excellent links with industry through placement activity and emerging employer panels. However, there would seem to be an opportunity to diversify engagement further by developing industry-based 'critical friends' who can offer support and opportunities across all the Discipline's activities (learning and teaching, enterprise and research).

Section 6	**Discipline Response to Report**

Short summary response by Discipline on follow up action for inclusion in published report:

Curricula and Standards:

* Development area: encouragement of each subject area to clearly articulate its vision in a development plan that embraces research, enterprise and the programme portfolio.

Each subject area is now required to produce its own ADP on an annual basis. This Team ADP feeds directly into the School ADP. All the areas suggested are included in the scope of the Team ADP.

* Development area: the Discipline should continue with its review of admissions criteria and processes for international recruitment to ensure standards are appropriate and consistently applied. There is a need to improve retention rates where the international cohort is proportionately high in order to ensure a positive experience for all students including those remaining on the programme.

This is an ongoing process of adaptation to new and emerging markets each with its own challenges. This is being driven by the School Executive. A tightening and clarification of requirements has been communicated to agents and anecdotal evidence suggests that improvements to cohorts (e.g. CNT MSc) are evident. Already extensive student retention mechanisms are being carried through and results are being monitored closely.

* Development area: consider how to promote the 'Computing at Northumbria' brand beyond the region.

The School continues to develop its Marketing Department activities and is looking strategically to recruit from as wide a base a practical. A number of specific activities are:

- *annual visit to Ampleforth College in York;*
- *follow ups on all 'connect' contacts;*
- *taster day for college students from Leeds; and*

- *information promotion in Northern Ireland via 'Education Liaison'.*

The School has many high profile activities and uses these effectively in promotion material and web presence. Activities with other institutions including research and external examinerships further enhance the School beyond the region. 2 staff are now BCS reviewers and have contact with similar disciplines across the country.

Management Information:

* Development area: work with University in order to ensure the reliability of data and a format that informs the Discipline's decision making around retention, transfer, performance and employment.

The Programme Cluster Senior Administrator is now a member of a University wide 'Data Management Group', which aims in part to improve the understanding of University data.

Student Experience:

* Development area: support for the Schools' plans for an initial single point of contact for student support and encouragement of its early implementation.

The single point of contact has been implemented (i.e. the School Office) and the structure for Guidance Tutors has been simplified by using Year Tutors and Programme Leaders as opposed to a shared allocation among all staff. Disabled access in the Matrix has now been improved with the availability of a low level access PC. Currently low level printer access in Pandon Basement is being reviewed in light of disabled access.

Enhancement Strategies:

* Development area: development of a shared understanding of what internationalisation means for the Discipline and how this can be embedded in the curriculum.

The School has examined internationalisation as part of a School wide review and work has been undertaken in conjunction with CETL on this issue. Informally, internationalisation is being considered as a module component during reviews or creation. As much of the material taught within the School has an international nature (e.g. global standards), many modules already have an international flavour and do not present colloquial perspectives. Work in this area continues.

* Development area: diversity engagement further by developing industry-based 'critical friends' who can offer support and opportunities across all the Discipline's activities (learning and teaching, enterprise and research).

The School has moved towards a clearer structure of formal discipline focused Industrial Advisory Boards that meet on a regular basis. Particular staff in subject teams have been allocated responsibility for industrial liaison. As a consequence of the review, specific contacts have been further developed with Ubisoft resulting in a number of tasks to enhance Northumbria's relations with the company. The Industrial Advisory Board continues to meet at least twice per year and presents many opportunities for development. As an example, recent discussions with Northern Film and Media have presented many interesting avenues to explore within the Discipline.