

Department of Physics

Peer Review Group:

Professor J. Sodeau, Professor of Physical Chemistry, UCC (Chair)
 Professor D. Clarke, Professor of Philosophy, UCC
 Professor I. McGovern, Professor of Physics, TCD
 Professor L.M. Brown, Microstructural Physics Group, University of Cambridge, UK

Brief Summary of conduct of Site Visit:

The site visit was conducted over 2.5 days from 4th – 6th March, 2001 and included meetings with

- i) Head and staff of the department as a group and individually,
 - ii) Representatives of undergraduate and postgraduate students,
 - iii) Professor P. Fitzpatrick, Vice-Dean of Science Faculty, with the Administrative Officer of the Science Faculty, Ms. M. Loughman, in attendance
 - iv) Professor M. A. Moran, Registrar & VP for Academic Affairs,
 - v) Professor B. Harvey, VP for Research Policy & Support
- and visits to departmental and library facilities in UCC.

An exit presentation of the principal findings of the Peer Review Group was made to staff of the department in the afternoon of the second day.

Description of Department of Physics

Head of Department: Professor J. McInerney

No. of Staff: 11 Academic staff (7 f/t perm, 2 f/t temp, 2 p/t temp), 7 technical support staff and 5

administrative staff (3 f/t perm, 2 p/t temp)

Location of Department: O'Kane Building

Degrees/Diplomas offered: BSc, MSc, PhD

No. of students: In 1999/2000 the department had 157 U/G FTEs and 28 P/G FTEs, distributed as follows:

Engineering	Food Sc & Tech	Medicine	Science
12	24	13	137

Year 1	Year 2	Year 3	Year 4	JYA	Socrates	Total U/G	Diploma	MA Taught	MA Research	PhD	Total P/G
120	17	10	9	1	1	157	4	2	3	19	28

Mission Statement

“The major missions of the Department of Physics are to

- educate, train and develop students to the highest international standards
- develop, disseminate and apply research to the highest international standards
- enhance employability, flexibility and versatility of Physics graduates at all levels
- play a pivotal role in development of the University, region and nation
- encourage the best students, teachers, researchers and academics to Physics
- develop applications of Physics to other disciplines, society and the economy.”

Aims & Objectives

- Increase the size of the Department to 300 student FTE by 2005.
- Increase number of B Sc graduates to 40 per year by 2005.
- Increase number of postgraduates to 60 (30-40 PhD, 20-30 M Sc/H Dip) by 2005.
- Staff complement will reach 10 permanent + 4 full-time temporary academics.

- Consolidate core BSc degrees, introduce new joint degrees in identified strategic areas.
- Targets for more research groups, higher activity (publications, presentations, staff, funds, collaborations).
- Reorganise Department administration, introduce effective HR and training policies for staff and students.

General Comment on Quality Review

The review group commented that the Self-Assessment Report had been hastily prepared and as a consequence additional information had to be supplied to the group at short notice. The review group commented on the inadequate nature of the financial support that the department receives from central university funds and, when considering its assessment, took this into account. They found the department provides outstanding and laboratory work despite overcrowded conditions in practical classes and old-fashioned lecture halls. The research activity was found to be of an internationally recognised level, as judged by publication in peer review journals. The group found the Kane Building to be badly in need of refurbishment and upgrading.

Progress on Recommendations for Improvement

Note: Professor John McInerney was the Head of Department during the preparation for the review and the review itself. However he is currently on leave for the academic year 2000/02. Professor S. Fahy took over as Head of Physics on 1st October 2001. Both Professors Fahy and McInerney commented on actions taken on the recommendations and their responses are incorporated below.

Recommendations of PRG	Recommendation by QPC	Follow-Up Report – Oct. '02
That communications within the Department should be improved.	Endorsed recommendation	This is on-going. The operation of the committee structure in the Department has been streamlined. In practice there have been fewer staff meetings but the facility is there to have one every month if needed. Minutes of meetings and decisions taken are circulated to all staff of the Department. All committees have representatives of academic, administrative and technical support staff.
That truly functioning Graduate Studies and Staff-Student Committees be established.	QPC endorsed recommendation.	A Graduate Studies Committee, with three members from the academic staff was established in October '01. The committee has reviewed the status of all graduate students within the Department. All applications for admission to MSc and PhD degrees are referred to the committee prior to approval. Committee has produced a postgraduate booklet for the Department. The Staff : Student Committee consists of the course directors for each year and the class representatives. This functions well and meetings are organised as necessary, with a

Recommendations of PRG	Recommendation by QPC	Follow-Up Report – Oct. '02
		minimum of a meeting once a term.
That a representative departmental committee be established.	QPC endorsed recommendation.	Implemented. The committee consists of the Head, 2 elected representatives of the academic staff, 1 elected representative of the technical staff and 1 elected representative of the administrative staff. The committee has a 2-year term of office, except for the administrative staff member who sits on the committee for one year. The departmental manager is in attendance and takes minutes. The departmental committee now considers all major resources decisions.
That a system for rotation of the Headship of the Department of Physics be put in place.	QPC endorsed recommendation.	Not yet implemented. The Professor of Physics is in the process of deciding whether and when to allow amendment of his statute, a necessary pre-condition for the rotation of the headship.
That annual staff reviews be carried out.	QPC referred the recommendation to Department of HR for advice.	Not fully implemented yet. Department of HR is in the process of developing guidelines for conduct of 'annual staff reviews'. A Project Officer has been appointed to assist the Department of HR in developing these guidelines. It is the intention to hold discussions with all interested parties over the 2002/03 academic year and to work with staff to develop appropriate terminology and methodology.
That there should be improvement in laboratory and building infrastructure.	QPC commented that the refurbishment of the Kane Building is specifically referred to in the UCC strategic plan. A detailed case with specifics and benchmarking with departments in other institutions should be made by the Department to the appropriate bodies in UCC.	A working group has been formed of three staff within the department to formulate plans for the complete refurbishment of the department in the long-term. In the short-term appropriate refurbishment of space is a major financial issue in the hiring of new academic and research staff. The Department has benchmarked itself against other Departments of Physics in Ireland, specifically with respect to student numbers, space available, quality of space, etc. The IT building project is still paused and there are increasing problems with increasing student numbers.
That an in-depth review of service teaching should be carried out in consultation with the relevant departments.	QPC endorsed recommendation.	This has happened over the academic year 2001/02. An external education consultant was employed and a number of meetings, including focus sessions with students and staff of Food Science & Technology Faculty took place, along with discussions with the course

Recommendations of PRG	Recommendation by QPC	Follow-Up Report – Oct. '02
		<p>team for the Environmental Science programme and the Engineering Faculty. As a consequence of the review a programme of 4 different First Year courses have been developed with specific focus on particular needs of the different groupings (Physical & Mathematical Science, Biological Sciences, Food Science & Environmental Sciences, Engineering). This has been implemented in 2002/03 academic year (notwithstanding the 50% depletion of permanent staff of the department).</p>
<p>That one of the vacant lectureships in the Department should be designated specifically for Astrophysics.</p>	<p>QPC noted that the issue was already decided as advertisements have been made for the posts.</p>	<p>Has been implemented. A lecturer in Astrophysics has been appointed and has taken up the position.</p>
<p>That research and teaching strategic alliances should be formed between the Department of Physics with the NMRC, CIT and the Department of Electrical & Electronic Engineering in UCC.</p>	<p>QPC endorsed recommendation.</p>	<p>There are extensive connections with the NMRC and the Department of Electrical & Electronic Engineering, both teaching and research collaborations. New collaborative teaching programmes are being developed with the NMRC and with the Department of Microelectronic Engineering, e.g. MSc in Photonics. Every effort is being made to enhance such collaborations.</p>
<p>That the UCC central management addresses the on-going issues of employment conditions and promotion prospects for technicians.</p>	<p>QPC referred recommendation to the Department of HR for comment.</p>	<p>Technician review group are developing proposals currently and had hoped to finalise them by end of year 2002. At the date of writing this report proposals had not been finalised.</p>