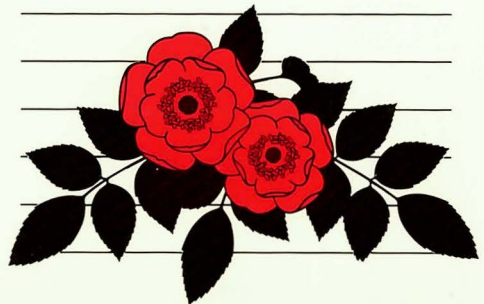


LANCASHIRE
POLYTECHNIC

FULL TIME
PROSPECTUS

1990~91



LANCASHIRE
POLYTECHNIC

FULL-TIME
COURSES 1990-91



1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It highlights the importance of using reliable sources and ensuring the accuracy of the information gathered.

3. The third part of the document discusses the challenges and limitations of data collection and analysis. It identifies common pitfalls and provides strategies to overcome them, such as using multiple sources and cross-verifying information.

4. The fourth part of the document provides a detailed overview of the data analysis process. It describes the steps involved in identifying trends, patterns, and correlations within the data set.

5. The fifth part of the document discusses the importance of interpreting the results of the data analysis. It emphasizes the need to consider the context and limitations of the data when drawing conclusions.

6. The sixth part of the document provides a summary of the key findings and conclusions. It highlights the most significant insights and offers recommendations for future research and practice.

7. The seventh part of the document discusses the implications of the findings for policy and practice. It offers suggestions for how the information can be used to inform decision-making and improve outcomes.

8. The eighth part of the document provides a final summary and conclusion. It reiterates the importance of accurate data collection and analysis and offers a final thought on the future of the field.

9. The ninth part of the document discusses the limitations of the study and the need for further research. It identifies areas where more data and analysis are needed to fully understand the issues at hand.

10. The tenth part of the document provides a final summary and conclusion. It reiterates the importance of accurate data collection and analysis and offers a final thought on the future of the field.

11. The eleventh part of the document discusses the limitations of the study and the need for further research. It identifies areas where more data and analysis are needed to fully understand the issues at hand.

12. The twelfth part of the document provides a final summary and conclusion. It reiterates the importance of accurate data collection and analysis and offers a final thought on the future of the field.

LANCASHIRE POLYTECHNIC

FULL-TIME COURSES 1990-91

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THE
MISSION
STATEMENT

The purpose of Lancashire Polytechnic is to encourage individuals to develop their full potential by providing a stimulating learning environment encompassing a wide range of educational activities.

MISSION STATEMENT

To encourage individuals to participate in the learning environment, the polytechnic aims:

- To provide the widest possible access to those individuals who seek to benefit from its educational activities and to remove barriers to those with special needs.

- To encourage and enable those in the region of the polytechnic, especially in Lancashire and Cumbria, to participate in and benefit from higher education in general and the polytechnic's provisions in particular, thereby taking part in the enrichment and development of the region's social, economic, cultural and recreational activities.

- To develop relationships with other educational institutions, particularly within the region of the polytechnic, and to facilitate progression through the educational system.

To promote the development of the full potential of the individuals participating in its educational activities, the polytechnic aims:

- To ensure equality of opportunity by combating all forms of prejudice and by eliminating all forms of unfair discrimination.

- To ensure adequate levels of literacy and numeracy, to foster the development of a spirit of enquiry leading to open and critical minds and to provide an environment in which individuals can develop their ability to act with confidence and competence.

To provide a stimulating learning environment the polytechnic aims:

- To provide opportunities for all for involvement in the provision and development of the learning environment.

- To foster contact and understanding between the polytechnic and members of other educational institutions regionally, nationally and in other countries.

- To engage in scholarly, research and income generation activities supportive of a stimulating learning environment.

In its provision of a wide range of educational activities, and insofar as they support its purpose, the polytechnic aims:

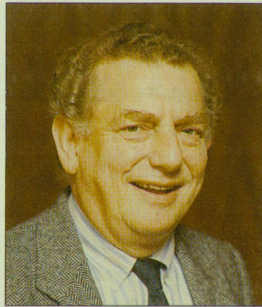
- To provide the widest possible scope, choice and flexibility in its educational activities and facilities to meet the demands of those individuals who seek to benefit from them.

- To develop a positive relationship with industry, commerce, public and private sector bodies, and the professions.

In interpreting and implementing its purpose and aims, the polytechnic will adopt, as appropriate, an innovative, reflective and dynamic approach. ■

DIRECTORS
FOREWORD

Although Lancashire Polytechnic is the youngest and most modern higher education institution in England, it respects traditional educational values.



It is located on a compact campus near the centre of the ancient town of Preston in the North of England. It has more than 8000 students studying full-time or part-time, mostly for degrees and diplomas. They attend for many reasons and the polytechnic respects those reasons. Most students are motivated by a desire to improve their qualifications towards a successful career and the polytechnic aims to help them in this. The polytechnic also acknowledges the needs and desires of students to grow in maturity and in confidence as members of society and in every aspect of life. It therefore tries to maintain a social learning environment in which students can develop beyond the limitations of a degree or diploma curriculum.

The polytechnic enjoys being an integral part of the ancient town of "Proud Preston" and it eschews demarcations between town and gown. All the citizens of the town are welcome to participate in polytechnic life and members of the polytechnic are encouraged to engage in the life of the town.

Preston is an excellent communications centre. The polytechnic campus is only ten minutes walk away from a major main line railway station and one of the largest bus stations in the country. Manchester, Liverpool, Blackpool and the Fylde Coast, the Lake District, the Bowland Forest and the Yorkshire Dales are easily accessible by road.

The polytechnic and the town of Preston are glad to welcome students from all parts of Britain and from many other parts of the world. For many students it provides an ideal environment and these are the students it seeks. ■

ERIC E ROBINSON, DIRECTOR

1. ERIC ROBINSON
DIRECTOR
2. ADELPHI SITE

LANCASHIRE POLYTECHNIC

DIRECTORS
FOREWORD

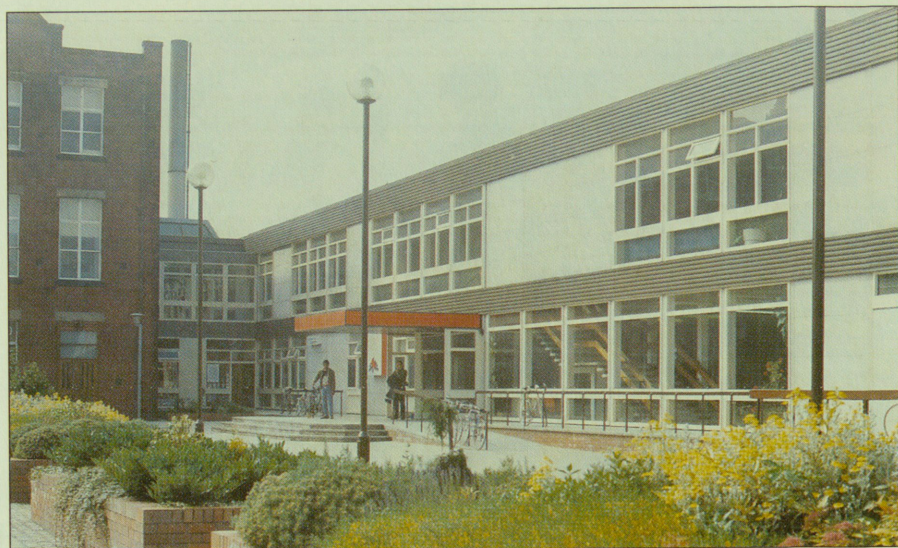




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1. POLYTECHNIC LIBRARY STUDY AREA
2. POLYTECHNIC LIBRARY
3. FOSTER BUILDING
4. VICTORIA BUILDING
5. STUDENTS UNION CAFE
6. HARRIS BUILDING
7. ARTS CENTRE & LIBRARY

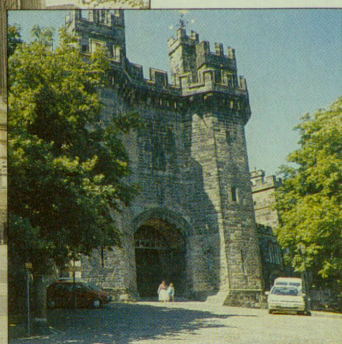
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1. HARRIS MUSEUM & ART GALLERY
2. FISHERGATE SHOPPING CENTRE
3. LANCASTER CASTLE
4. LAKE DISTRICT

THE POLYTECHNIC

The aim of Lancashire Polytechnic is to encourage individuals to develop their full potential. It seeks to achieve this by providing a stimulating learning environment encompassing a wide range of educational activities. As part of this environment it offers extremely flexible courses that will give students, working with the staff of the polytechnic, opportunities to pursue their interests. The polytechnic plays a leading role in the provision of higher education in the region. The name Lancashire Polytechnic emphasises the polytechnic's development and role in the county.

At the polytechnic students can learn many arts and skills ranging from the fine arts of painting and sculpture to those of high technology, business, communications and the care of the sick and aged. The polytechnic has accepted a role and responsibility to the people of the north-west in promoting these arts and skills throughout the region. It is work that is not merely confined to the lecture rooms and libraries of the academic world but also to the shops, offices, factories and houses.

Wherever people have problems that may yield to the application of thought and skill the polytechnic has a role. The polytechnic has strong positive relationships with commerce, industry and both public and private sector bodies. It uses the insight gained through these relationships to ensure that its courses reflect the latest developments and are geared to ensure that students of the polytechnic develop the ability to tackle real problems with skill and flair.

Lancashire Polytechnic has strong links with universities and other higher education institutions throughout Europe, USA and China. It uses these links to provide opportunities for students to undertake parts of their studies abroad. To allow students to make the most of these opportunities, it offers optional language courses to all students at the polytechnic.

Special consideration will be given to mature students wishing to take courses. The polytechnic may exercise its discretion to admit a student whose qualifications do not conform to the standard minimum entrance requirements

but who presents other evidence which, in the opinion of the polytechnic, indicates that he or she has the capacity and attainment to pursue the course of study proposed.

A HISTORY OF ACHIEVEMENT

Lancashire Polytechnic can look back on a long history of service to the people of the county.

The Institute for the Diffusion of Knowledge, to which the polytechnic can trace its roots, was founded in Preston in 1828, following a meeting called by Joseph Livesey, the temperance pioneer.

In 1887, the name was changed to the Harris Institute as a result of a bequest from a Preston solicitor, ER Harris. Part of the money was used to finance the building of the Victoria Jubilee Technical School, Corporation Street, Preston, opened in 1897, which is now the Harris Building of the polytechnic. Thereafter it steadily developed as a major technical college until in 1956 the Harris Institute was redesignated as the Harris College.

Preston Polytechnic was designated in 1973 on the basis of the advanced work of Harris College which was to be greatly expanded to include diploma, degree and postgraduate work. The name Lancashire Polytechnic was formally adopted on 1 September 1984.

In 1988 the polytechnic was granted Accredited status by the Council for National Academic Awards (CNAA). In effect this is a licence for the polytechnic to grant its own degree awards within the charter and statutes of the CNAA and reflects the confidence of the CNAA in the quality and academic standards maintained by the polytechnic.

A DEVELOPING CAMPUS

The polytechnic is based in Preston, the administrative centre of the county. It is largely on one site close to the centre of the town with all the polytechnic's buildings within walking distance.

Since its designation the polytechnic campus has developed rapidly. It has a large library with approximately 260,000 bound volumes and 700 reader places for people to study. The campus includes a number of modern buildings which have been specially designed.

There are extensive computer facilities available for both academic and administrative

use. The Computing Service's work is based around six PRIME and three VAX computers linked to a network of connections covering the polytechnic and a large number of local schools and colleges. In addition microcomputers are available in every building.

Over the past decade the Arts Centre has established a growing reputation for its wide range of events. Housed in the former St Peter's Church it offers a multi-purpose performance area and exhibition centre. The polytechnic has also developed its conference and catering facilities.

Preston is an ancient market town of the fertile agricultural area of West Lancashire. It is on the north-west corner of a great industrial region. To the north are the Trough of Bowland and the Lake District – some of the most beautiful landscapes in the British Isles. To the north-west is the Fylde coast, the sea and the holiday resorts of Blackpool and Morecambe.

Preston is a major focus of road and rail communications in the north-west. Motorways provide excellent access to Yorkshire, the Midlands, London and Scotland. London can also be reached by rail in under three hours.

ACADEMIC WORK

The academic work of the polytechnic is organised around its five faculties: Arts, Business and Management, Science, Social Studies and Technology. The Combined Studies Programme provides a uniquely flexible range of courses through its credit accumulation scheme which enables students to pursue their interests via multi-disciplinary or specialised courses. The polytechnic is introducing credit accumulation across the whole range of its courses to provide this flexibility throughout the polytechnic.

The polytechnic provides a wide variety of courses, many of which reflect its strong links with industry, commerce and public service.

There are approximately 60 full-time and sandwich courses offered at degree, Higher National Diploma, professional and postgraduate level. For those wishing to study part-time, around 80 courses are offered. Many of the courses lead to professional qualifications and have links with professional bodies and industry. There is also considerable research work undertaken by staff, much of it relating to the needs of local industry.

There are approximately 4,700 full-time and sandwich course students and about 3,500 part-time and block-release students. The polytechnic also runs a number of short and specialist courses. Nearly 1100 academic and non-academic staff work at the polytechnic.

In a move to improve and widen access to higher education the polytechnic is developing its links with other colleges throughout Lancashire. The aim is to make it possible to undertake the early stages of a degree course at a local college, under polytechnic supervision. Nine such agreements have been signed and one is under consideration.

The polytechnic is committed to the provision of courses for adults wishing to return or to continue their education and training. This provision includes courses on new technology, new commercial and industrial practices, courses designed to fulfil the continuing training requirements of professional bodies, as well as courses taken for interest or personal development right across the range of polytechnic provision. The Continuing Education Service has the role of helping and advising those wishing to improve their skills.

If you need any advice or information about polytechnic courses, please contact Donald Cullingworth, the Educational Liaison Officer.

INDUSTRY AND COMMERCE

The polytechnic has a wealth of experience in introducing new techniques and is ready to share its expertise with industry, commerce and the public sector.

The polytechnic's Commercial and International Unit provides this valuable service. If a company requires information, advice or assistance it can turn to the Unit as the first point of contact with the polytechnic and know that a request will be dealt with quickly and sympathetically. The Unit aims to make the polytechnic's expertise available to the community. It offers a range of services including consultancy, organising training courses and conferences, a student placement service and the production of education and training materials. Contact Eileen Murphy, Head of the Unit, for further details.



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1. INFORMAL CHAT WITH YOUR TUTOR
2. STRESS ANALYSIS
3. WORKING AT A COMPUTER TERMINAL
4. DEGREE & AWARDS CEREMONY



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1. HALLS OF RESIDENCE
2. HARRIS HOUSES
3. HALLS OF RESIDENCE — STUDY BEDROOM
4. RACIAL EQUALITY UNIT

COURSES

The polytechnic offers a wide variety of courses both full-time and part-time, ranging from below degree level standard to postgraduate level.

DEGREE COURSES AND THE CNAA

The degree courses offered are conducted under the auspices of the Council for National Academic Awards (CNAA). The CNAA was established in 1964 by Royal Charter and ensures that its degrees are equivalent in standard to university degrees by means of a rigorous examination of degree submissions and of the staff and facilities of the institution proposing to offer the courses.

In 1988 the polytechnic was granted Accredited status by the CNAA which in effect allows the polytechnic a licence to grant its own degree awards within the charter and statutes of the CNAA. This Accredited status reflects the confidence of the CNAA in the quality and academic standards maintained by the polytechnic.

HIGHER NATIONAL DIPLOMA COURSES, BTEC

Among the full-time courses other than degrees the most numerous are the Higher National Diplomas, awarded since the 1920s by Joint Committees of the Department of Education and Science and professional institutions. Courses at this level have now been placed under the aegis of the Business and Technician Educational Council (BTEC), and a new range of Higher National Diplomas awarded by this body is emerging. Whilst the normal minimum entry requirements for degree courses includes two 'A' levels, the requirement for these diploma courses normally includes only one 'A' level (or an equivalent, eg an OND or ONC).

The main BTEC awards are:

- BTEC General Certificate/Diploma in Business Studies
- BTEC National Certificate/Diploma
- BTEC Higher National Certificate/Diploma
- BTEC Post Experience Certificate

The polytechnic offers Higher National Certificate, Higher National Diploma and Post Experience Certificate courses leading to BTEC awards.

ENTRY REQUIREMENTS FOR HIGHER BTEC COURSES

Minimum entry requirements for Higher National Certificate/Diploma courses are

- The relevant Certificate or Diploma, with supplementary studies if necessary, or
- Studies to GCE Advanced level and passes in at least one relevant subject at that level, or
- An attainment equivalent to the above.

GENERAL STRUCTURE OF COURSES AND ASSESSMENT

Polytechnic Higher National Certificate and Diploma courses are structured on a unit basis.

Higher National Certificate and Diploma programmes may contain Level II, III, IV and V course units. The concept of the Level of a unit is based on prerequisites and depends on recognition of progression in a programme. An appropriate Level III course unit would normally need to be completed before a Level IV unit is undertaken.

Each course unit will be independent and contain its own course assessment and examinations. On the successful completion of each unit, students will be given a grading which will be pass with distinction, pass with merit, or pass. Students who achieve the appropriate number of passes will be awarded either a Higher National Certificate or a Higher National Diploma.

OPTIONS WITHIN COURSES

Since each course contains a number of units which offer opportunities for optional studies a Higher National Certificate or Higher National Diploma course might be better described as a course complex embracing a number of programmes of study. The unit structure enables programmes to be devised which can be tailor-made to meet specific academic, practical or industrial needs.

HIGHER NATIONAL CERTIFICATES

The Higher National Certificate programme normally comprises a minimum of 10 units and consists of approximately 600 hours of part-time study in the polytechnic for the average student.

The combination of 60 hour units reflects

the numbers and levels indicated below.

Minimum number of units in programme	10
Minimum number of units at levels IV and V	6
Number of level V units normally expected	2
Maximum number of free standing units and units at levels II and III	4

HIGHER NATIONAL DIPLOMAS

Higher National Diploma programmes vary according to the aims of the course. Programmes providing a suitable education for senior technicians normally comprise 1,200-1,500 hours of study. Programmes designed for students aiming to transfer to degree or professional courses may involve more than 1,500 hours of study in the polytechnic. The mode of study may be full-time/sandwich or part-time. The latter mode of study offers an opportunity for the student with a Higher National Certificate to continue part-time studies for a Higher National Diploma.

The composition of a Higher National Diploma programme comprising 20 units each of 60 hours (1,500 hours total) would be:

Minimum number of units in programme	20
Minimum number of units at levels IV and V	12
Number of level V units normally expected	4
Maximum number of free standing units and units at levels II and III	8

GENERAL AND COMMUNICATION STUDIES

All programmes leading to higher awards contain material related to supervisory or communication studies or studies complementary to the main theme of the programme.

DEVELOPMENT

The latest information about particular BTEC courses in the polytechnic may be obtained from the appropriate Head of School or course leader. Information on BTEC courses generally can also be obtained from:

Business and Technician Education Council (BTEC),
Central House, Upper Woburn Place, London WC1H 0HH. Tel: 01-388 3288.

PROFESSIONAL QUALIFICATIONS

The polytechnic also offers courses leading to membership of professional bodies, or granting partial exemption from the examinations of such

bodies. These courses are usually accepted as being of degree level standard as far as entry to study for higher degrees, salary purposes etc., are concerned. Many students who have completed Higher National Diploma courses go on to complete courses of this nature and thus obtain qualifications of degree standard, although initially they may not have the necessary minimum entry requirements for a degree course.

POSTGRADUATE AND POST EXPERIENCE COURSES

In addition to the above courses, there is a variety of courses for those who already possess a first degree or other qualification or suitable job experience. Diplomas in Social Work leading to the Certificate of Qualification in Social Work of the Central Council for the Education and Training in Social Work, the Diploma in Management Studies, and the Diploma for Bilingual Executive Assistants taken by graduates with language qualifications are examples of courses of this kind. It is also possible to work for a higher degree by research at the polytechnic, either on a full-time or part-time basis.

HIGHER DEGREES BY RESEARCH

The polytechnic offers opportunities for students to register for research degrees of the Council for National Academic Awards (CNAA) both on a full-time and a part-time basis. A research degree is not a taught course but is awarded on the basis of an individually initiated and registered research project. Students may study either for the degree of Master of Philosophy (MPhil) or Doctor of Philosophy (PhD).

Completion time for higher degrees varies but the minimum registration period for full-time students is 21 months for MPhil and 33 months for PhD. For much of the time you will be working on your own initiative but you will be allocated supervisors who will advise you appropriately.

The normal entry requirement for a research degree is a first or second class UK Honours degree but candidates with other qualifications will be considered on their merits. Lack of formal academic qualifications may be compensated for by appropriate work experience.

Registering for a full-time research degree can be expensive. Fees for the academic session 1988-89 were £4,017. The polytechnic is not usually in a position to offer direct funding but information about sources of funding is available.

If you are interested in undertaking a full-time higher degree, you should write to the Academic Registrar, outlining the area of research which interests you. The polytechnic will discuss your proposals with you and advise on the possibilities for registration.

TRANSFERABILITY BETWEEN COURSES

Because of the variety of courses in the polytechnic, transfer between different courses, is a possibility and this creates flexibility that can often be advantageous to students. In some cases there is provision for students who initially enter HND courses to transfer after a period to an appropriate stage of a degree course in similar subjects, provided their work is of a sufficiently high standard. Alternatively, a student who finds the standards of a degree course too rigorous may, in appropriate circumstances, transfer to an HND course.

MIXED COURSE APPLICATION

Application may be made for admission to more than one course. The application form has a space for the candidate to state alternative courses for which he would like to be considered in addition to his first choice. A candidate may be considered separately for the different courses and may be offered a place on more than one course. The PCAS application form may be used to apply for degree courses, Higher National Diploma courses or a combination of both.

SANDWICH COURSES

Many of the full-time polytechnic courses are of the 'sandwich' type. The term 'sandwich' indicates that periods of full-time academic study at the polytechnic alternate with periods of training in industry or the professions. A sandwich course may be of the 'thick' or 'thin' variety. A thick sandwich course includes a period of a complete year of industrial training, whilst in the thin sandwich variety two or more shorter periods (usually six months duration) alternate with periods of academic study within the polytechnic. The sandwich courses in the

Faculty of Arts are exceptions in that they may include a single 26 week period in industry.

SANDWICH COURSE AND OTHER TRAINING PLACEMENTS

The polytechnic normally helps students to obtain the professional or industrial placement for the period of training which forms an integral part of the course. During the time spent in the placement a sandwich course student will normally be paid a salary by the organisation for which he or she is working, whereas he or she will probably receive a local authority maintenance grant to cover the period in the polytechnic. A few students are sponsored by a particular organisation which agrees to provide the whole of the training experience, although a student may well be supported by the local authority during the period at the polytechnic. A small number of sandwich course students are 'industry based', that is to say their employers provide not only the training placement but also continue to pay the student a salary during the whole period spent in the polytechnic.

Some courses, notably social work courses, are not 'sandwich' courses in the strict sense of the term, but do include professional training as an integral part of the course. Here a student spends part of the week in college and part in the training placement, or periods of a few weeks at a time in the placement. Financial support in these cases is usually given by the same body throughout the course, including the placement element. The basis of this support may be either secondment by an employer or a local authority grant. ■

CALENDAR

1990-91 CALENDAR

AUTUMN TERM (12 WEEKS)

Term begins: Monday, 24 September 1990
 Term ends: Friday, 14 December 1990

SPRING TERM (11 WEEKS)

Term begins: Monday, 7 January 1991
 Term ends: Friday, 22 March 1991

SUMMER TERM (13 WEEKS)

Term begins: Monday, 15 April 1991
 Term ends: Friday, 12 July 1991

1991-92 CALENDAR

AUTUMN TERM (12 WEEKS)

Term begins: Monday, 30 September 1991
 Term ends: Friday, 20 December 1991

SPRING TERM (12 WEEKS)

Term begins: Monday, 13 January 1992
 Term ends: Friday, 3 April 1992

SUMMER TERM (12 WEEKS)

Term begins: Monday, 27 April 1992
 Term ends: Friday, 17 July 1992

Note:

These are outline calendars only. Individual course dates may deviate to some extent from these dates, although most courses will be contained within the outline calendars. The calendar may be changed because of the proposal to introduce credit accumulation and transfer across the whole range of polytechnic courses. ■

ADMISSION

ADMISSION

Lancashire Polytechnic seeks to provide a complete educational experience for its students leading to successful academic achievement within a socially and culturally active environment. Selection policy is geared towards those applicants who will derive most benefit from their positive participation as a member of the community of this polytechnic.

Within this policy, Lancashire Polytechnic encourages applications from anyone who sees the ethos of this polytechnic as particularly suitable for his/her needs, and recognises a special responsibility towards:

- Those who for domestic, cultural, physical or other reasons need to come to this polytechnic;
- Those who are seeking to re-enter the education system after a period away from study;
- Those with alternative experience in lieu of the normal entry requirements.

ENTRY REQUIREMENTS

Lancashire Polytechnic wishes to encourage the many people seeking access to higher education who do not hold standard entry qualifications and we therefore operate a flexible admissions policy with respect to the minimum general entry requirement. All applications are considered on merit and selection is based on your ability to benefit from the course of study for which you have applied, evidence of your competence to undertake the course and your commitment as a contributor and participant in the higher education process. Evidence of competence to undertake the course may be demonstrated through formal qualifications or through work or other experience from which you have gained relevant knowledge or skills.

ALTERNATIVE QUALIFICATIONS

If you are an applicant offering alternative qualifications/experience you will be invited for interview where you will have an opportunity to discuss your application fully with a member of the admissions team. If you wish to discuss your position before submitting a formal application you should contact the appropriate admissions office, the Educational Liaison Office or the Continuing Education Office. In terms of those

qualifications most commonly offered by applicants the general minimum entry requirement is detailed below. You should note however that many of the polytechnic's courses are heavily oversubscribed and in order to secure a place you may be required to obtain more than the minimum requirement.

NORMAL ADMISSION REQUIREMENTS

DEGREE COURSES

- * Five GCSE/GCE passes in appropriate subjects, including two 'A' levels or six GCSE/GCE passes in appropriate subjects including three 'AS' levels, or
- BTEC Certificate or Diploma of appropriate standard, or
- ONC/OND of appropriate standard, or
- Completion of an Open College course with appropriate passes in Stage A and Stage B units.

BTEC HIGHER NATIONAL DIPLOMA COURSES

- * Five GCSE/GCE passes in appropriate subjects, including one 'A' level or six GCSE/GCE passes in appropriate subjects including two 'AS' levels, or
- BTEC Certificate or Diploma, or
- ONC/OND, or
- Completion of an Open College course with appropriate passes in Stage A and Stage B units.

Combinations of 'A' levels and 'AS' levels will also fulfil the normal entry requirement and an 'A' level pass in conjunction with one or more 'AS' levels with appropriate GCSE/GCE 'O' level passes will satisfy the entry requirement for either degree or HND courses. The same subject cannot be offered at both 'A' and 'AS' level in fulfilment of the normal entry requirement.

* In the GCSE and GCE 'O' level examinations grades A-C will be accepted as constituting a pass as will a CSE grade 1.

EQUIVALENCE OF THE SCOTTISH CERTIFICATE OF EDUCATION TO THE GENERAL CERTIFICATE OF EDUCATION

The ordinary grade examination for the Scottish Certificate of Education and the GCSE/'O' level examinations both attest to attainment at the age of 16 and awards of at least band C in both examinations are therefore generally recognised as equivalent on a subject for subject basis.

Higher grade awards for the Scottish Certificate of Education however reflect attainment one year earlier than do GCE Advanced level awards and may moreover represent less specialised study in a given subject.

The following formulae of equivalence have in the past been adopted:

- An SCE higher grade 'A' or 'B' pass is equivalent to a pass in the Advanced level of the GCE.
- Three SCE higher grade passes are equivalent to two passes in the Advanced level of the GCE.
- Four SCE higher grade passes are equivalent to three passes in the Advanced level of the GCE.

Most courses have specific subject requirements and full details are given in the course information section of the prospectus or in the course information leaflet. Details of entry requirements for courses other than those specified above are also given in the course information section and the course information leaflet.

IRISH QUALIFICATIONS

The Irish Leaving Certificate attests to attainment at the age of 17 and grades A-D at the standard/ordinary level are generally recognised as equivalent to GCSE/GCE 'O' level on a subject for subject basis.

Honours/higher level awards in the leaving certificate however reflect attainment one year earlier than do GCE Advanced level awards and may moreover represent less specialised study in a given subject.

The following formulae of equivalence has been adopted:

- A leaving certificate honours/higher grade 'A' or 'B' subject pass is equivalent to a pass in the Advanced level of the GCE.

- Three leaving certificate honours/higher grade subject passes are equivalent to two passes in the Advanced level of the GCE.
- Four leaving certificate honours/higher grade subject passes are equivalent to three passes in the Advanced level of the GCE.

INTERNATIONAL BACCALAUREATE

The Baccalaureate is a higher certificate in which students take six subjects, three at a higher and three at a subsidiary level. Each subject is marked from 1-7 (min-max) with grade 4 as the pass level. Subjects studied must include: mathematics, a science, two languages, one 'Study of Man' subject and one other.

The full Baccalaureate is comparable to 'A' level standard and would admit a candidate to any of the polytechnic's undergraduate courses. Students who have obtained good passes in the three subjects studied at the higher level but who have not obtained the full certificate may also be considered for admission.

Some courses have specific subject requirements, full details are given in the course information section of the prospectus or in the course information leaflet. Details of entry requirements for courses other than those specified above are also given in the course information section and course information leaflet.

APPLICATION PROCEDURES

Admissions to many full-time courses at polytechnics are made through central clearing houses. These operate nationally, providing a more efficient system both for prospective students and the institutions receiving the applications. Applying through a clearing house means you only complete one application form which is then sent simultaneously to the polytechnics you have chosen. In this way you can be sure that each polytechnic will give your application full consideration. You can nominate up to four different courses/polytechnics using the clearing systems.

The clearing houses provide handbooks or guides with the application forms and they contain basic information about all the courses they cover along with detailed notes on how to complete the application form. A handling fee is

charged for processing the application.

DEGREES, HIGHER EDUCATION DIPLOMAS AND HIGHER NATIONAL DIPLOMAS (EXCEPT IN ART AND DESIGN)

Applications for these courses are handled by the Polytechnics' Central Admissions System (PCAS). This is the newest and the largest of the clearing houses. It came into operation for the first time for the 1986 entry. Application forms, guide for applicants and acknowledgement cards are available in schools, colleges and careers offices from May and June each year and the closing date for receipt of applications is 15 December. If you are not at school or college you may obtain them direct from PCAS.

Further information about PCAS can be obtained from the Lancashire Polytechnic Educational Liaison Office or you can write direct to: PCAS, PO Box 67, Cheltenham, Glos, GL50 3AP.

COMPLETING THE PCAS APPLICATION FORM

The PCAS form will be photocopied and reduced in size before it is sent to the polytechnics and colleges. It is therefore important that you write neatly and in black ink.

■ You may choose up to four of the courses for which application is made through PCAS for inclusion on your form. Admissions tutors will consider your application entirely on its merits, and no order of preference is required. Instructions on how to list your choices are included in the PCAS guide.

■ Take care to ensure that you copy the code names and code numbers correctly from the PCAS guide, and that you use the guide for the correct year of entry. The PCAS codes for the polytechnic are LANCS 08.

■ Each application form sent to PCAS must be accompanied by a fee. Full instructions for payment of the fee are given in the PCAS guide.

■ In the most popular subjects early application is advised. There is provision for late application but admissions tutors will consider them only if suitable vacancies remain on the courses selected. They may have to reject them if sufficient offers have clearly been made to fill all places on the course.

ART AND DESIGN – DEGREES AND HIGHER NATIONAL DIPLOMAS

Applications for these courses are handled by the Art and Design Admissions Registry (ADAR). Forms are distributed to schools and colleges in February each year and are otherwise available from: ADAR, Penn House, 9 Broad Street, Hereford HR4 9AP. Forms should be returned before the end of March.

POLYTECHNIC DIPLOMAS IN APPLIED SOCIAL STUDIES/SOCIAL WORK

Both of these courses lead to Diploma awards of the polytechnic and to the Certificate of Qualification in Social Work (CQSW) awarded by the Central Council for Education and Training in Social Work. Applications for these courses are handled by the clearing house for CQSW courses and forms are available direct from the clearing house at: 4th Floor, Myson House, Railway Terrace, Rugby, Warks. CV12 3HT. There is no closing date for receipt of applications but you should apply early or you may find that some courses are already full.

JOURNALISM COURSES

Special application procedures exist for these courses. Please contact the School Clerk, School of Journalism, Tel: 0772 201201 on Ext. 2501 for further details.

OTHER FULL-TIME COURSES

Applications for all other full-time courses (Polytechnic Diplomas etc.) are made direct to each polytechnic using the standard polytechnic application form. You can apply to as many polytechnics as you wish but you will need to complete a separate application form on each occasion. Applications to Lancashire Polytechnic should be returned to the Academic Registrar. You are advised to apply as early as possible before courses become oversubscribed.

Standard polytechnic application forms are available in schools, colleges and careers offices and also from the Educational Liaison Office at Lancashire Polytechnic where you can obtain detailed course information about any of the polytechnic's courses.

THE DIRECT APPLICATION PROCEDURE AT LANCASHIRE POLYTECHNIC

While the majority of students will wish to take the opportunity of applying to several

polytechnics, colleges or universities. Lancashire Polytechnic recognises that this flexibility is not open to everyone. Particular circumstances can mean that some students are restricted to obtaining their higher education locally. For these students, the clearing systems offer no advantage and they remove much of the direct relationship between the student and the polytechnic which is so important to those with special needs.

In recognition of our commitment to these students, Lancashire Polytechnic will accept direct applications for all its courses from those who are restricted to applying to us alone. Such applications will be given every consideration by admissions tutors alongside applications received through the clearing houses or any other source.

The direct application procedure is only available to students who cannot apply to any other polytechnic and we expect that this will be of particular interest to mature students or those who for domestic or cultural reasons are only able to study locally.

Students who choose to make a direct application must be aware that they cannot apply to any other polytechnic for that course and that they are specifically excluded from using any of the clearing systems. If you are considering making a direct application you are strongly advised to discuss your position first with the appropriate admissions tutor.

The direct application procedure is only available at Lancashire Polytechnic and applications should be made on the standard polytechnic application form clearly marked 'Direct Application' on the front sheet. Applications should be sent to the Academic Registrar. There is no closing date for receipt of applications but you are advised to bear in mind the closing dates for the clearing houses and the heavy demand for places on most courses.

OVERSEAS STUDENTS

Lancashire Polytechnic welcomes applications from overseas students and the application procedures described previously should be used unless your government makes any special requirements.

If you are not resident in this country at the moment, you will find that most of the literature and forms that are referred to in this prospectus are available from British Council offices or the

British Embassy in your country. Prospective overseas students should note that they will be required to show evidence of competence in written and spoken English in addition to the minimum course entry requirements and that special tuition fee rates apply.

If you have any problems obtaining information or if you require specific course leaflets, please write to the Educational Liaison Office, Lancashire Polytechnic, Preston PR1 2TQ.

STUDENTS WITH SPECIAL NEEDS

Disabled students are welcome at the polytechnic. Many students with special needs including those with mobility or visual handicap have studied successfully here. The same academic criteria are applied to disabled students as to all other applicants.

Although the polytechnic has been making improvements to the premises, some parts of the polytechnic are less accessible than others. The content of some courses may present difficulties. Any student with a special need is advised to visit the polytechnic before accepting a place on a course in order to make his/her own assessment of the suitability of the environment. The applicant will be given a full opportunity to discuss the means whereby any difficulties may be overcome.

There have been recent initiatives within the polytechnic to reduce the extra burden which disability adds to a student's workload. The School of Public Policy and Administration has been particularly active in this respect, setting up a unit to support students of the school with special needs such as the transfer of documents into braille or onto tape. A leaflet describing this and the other facilities for disabled students is available on request.

A further recent development has been the creation of two new posts. The Welfare Officer with particular responsibility for Special Needs and the Adviser for Students with Special Needs (academic) work closely together to try to ensure quality provision.

To arrange a visit and/or discuss any questions about special needs, please contact either Catherine Badminton (Welfare Officer) or Alan Hurst, (Adviser) who will be pleased to help. See also p.35.

POSTPONED ENTRY

In recent years more students have been taking a year off from their studies between school and higher education. There are advantages and drawbacks in doing so.

If you are thinking of taking a year off, get in touch in good time with the admissions tutor of the course(s) for which you are applying to discover what his/her attitude is. He/she is more likely to encourage you if you have plans for the constructive use of your time.

ETHNIC MONITORING

The polytechnic undertakes ethnic monitoring to determine whether its services are provided in a fair, equal and appropriate manner. Without monitoring, the adoption of an equal opportunities policy remains just words.

Furthermore, the information collected helps to identify problems and enables the effectiveness of the polytechnic's equal opportunities policy to be assessed. It is envisaged that monitoring will have four functions:-

- To improve the recruitment and selection process for all students.
- To identify differences between courses in the recruitment of ethnic minority students.
- To enable the polytechnic to design and set up programmes of positive action.
- To enable the polytechnic to evaluate the quality of student experience at the polytechnic, notably of those from ethnic minority backgrounds.

A question relating to ethnic monitoring is included in the polytechnic enrolment form. Students are asked to tick the box they feel best describes their own background and identity. Respondents are, of course, protected against any misuse of the information they provide by the Data Protection Act of 1984.

Further information can be obtained from the Racial Equality Unit.

GRANTS

Students following advanced full-time and sandwich courses at polytechnics are eligible for local authority awards, provided they are ordinarily resident in the United Kingdom and satisfy the conditions of the awards regulations. Normally those taking first degree, BTECHND and DipHE courses qualify for mandatory

awards whilst grants in most other cases are discretionary. Grants cover the cost of tuition, registration and examination fees and include allowances for maintenance, books and materials and travelling expenses, the amount of the grant being assessed according to the financial position of the student, taking account of parental income and other circumstances. Continuance of the grant is dependent upon satisfactory progress reports from the polytechnic.

A number of Social Science Research Council awards are available for students on the Diploma in Management Studies course and prospective applicants should contact the polytechnic Academic Registrar for further details of these awards. Grants may also be available for students on non-advanced courses, although such grants generally do not include a maintenance allowance.

Application for a grant should be made to the Chief Education Officer of the local education authority of the area in which the student lives. Application should be made in good time to ensure that the student's financial situation is clarified before the beginning of the course and students should note that the duty of an authority to bestow an award is subject to the condition that the application in writing reaches the authority before the date on which the course is due to begin. Students applying after the beginning of the course are thus dependent on authorities exercising discretion in their favour. Useful detailed information on students grants is to be found in the following publications, copies of which can be consulted in the polytechnic library:

GRANTS TO STUDENTS – A BRIEF GUIDE

Issued by the Department of Education and Science and obtainable from local authorities. Applies to applicants normally resident in England and Wales.

GUIDE TO STUDENTS ALLOWANCES

Issued by and available from the Scottish Education Department, Awards Branch, Haymarket House, Clifton Terrace, Edinburgh EH12 5DT.

GRANTS HANDBOOK

Published by the National Union of Students, 3 Endsleigh Street, London WC1 0DU. A particularly useful handbook on discretionary award problems.

EDUCATIONAL CHARITIES

Published by the National Union of Students. This lists trust funds that are able to make relatively small grants to students in need.

PERSONAL TUTOR SYSTEM

Each full-time or sandwich course student is allocated a personal tutor whom he can approach for advice on any personal or academic matter. Personal tutors are members of staff associated with the course which a student is attending and they have a special concern and interest in the general welfare and progress of those in their group. Students are advised to see their personal tutors if they have problems of any kind. ■

PROVISION FOR
MATURE
STUDENTS

Co-ordinator for Continuing Education: Ann Hanson BSc(Econ) MA Cert Ed

CONTINUING EDUCATION

The polytechnic is committed to the provision of courses for adults wishing to return to or continue their education and training. Such provision includes courses on new technology, new commercial and industrial practices, courses designed to fulfil the continuing training requirements of professional bodies, as well as courses taken for interest or personal development right across the range of polytechnic provision.

If the polytechnic is to remain responsive to social and technical change both nationally and locally, specific provision must be developed to meet immediate problems or needs. Such provision may not be reflected in this prospectus. This particularly applies to short courses (under 60 hours duration), conferences, meetings, lectures etc. If what you require is not mentioned in this prospectus, you should contact the Co-ordinator for Continuing Education, Ann Hanson. She may well be able to advise or give further information on recent course developments.

ADULT ACCESS TO POLYTECHNIC
COURSES

Adult students are encouraged to apply for any polytechnic course, whether part-time or full-time. Subject to the discretion of course tutors, allowance may be made for the modification of formal course entry requirements to take account of eg individual experience, continued personal and professional development and qualifications. Each application is treated on its own merits. It will be appreciated that individual adult circumstances and qualities vary considerably as do the requirements of different courses. About 30% of students (full and part-time) are over 25 years of age on enrolment; 60% are over 21.

If you are uncertain about entry

requirements and/or your own suitability contact the Co-ordinator for Continuing Education, Ann Hanson for an *informal* meeting to take stock of your interests and the possibilities available to you in this polytechnic and with other educational providers. If you have made up your mind about possible subject areas contact the course tutor named in the prospectus.

ACCESS ROUTES

Access courses have been developed to facilitate adult access to some of our degree and other courses. These contain 'return to study' elements and serve to introduce polytechnic courses and prepare adults for entry to them. Access courses are defined as those courses which guarantee entry to a named advanced course at the polytechnic for those students who achieve a specified level of attainment in the assessment package of the access course. There are many such access courses at the polytechnic and there are many other introductory or foundation courses which provide opportunities for return to study experience but do not carry guarantee of entry to a named advanced course. Briefly, these include:

NOW – New Opportunities for Women, one year, two days/week, 10.00 am-3.00 pm and also a 10 week, two day/week course.

HITECC – one year full-time Foundation course for Science and Engineering (with student support).

Technology for Women – one year full-time (with student support).

Access course for ethnic minorities – aiming mainly at Social Work, one year full time (with student support).

Short courses and part-time courses can be a useful introduction to polytechnic full-time courses – see the part-time prospectus for details.

ASSOCIATE STUDENT SCHEME

Adults can attend parts of many polytechnic courses on an associate student basis. An associate student studies alongside the regular students and has the same requirements on attendance, course work and, if desired, examinations for the particular part of the course selected. In some cases a complete award can be gained in this way but more often they provide a useful way to update an area of knowledge, develop an interest or test the water in a

particular subject area before embarking on a full-time course. Places are subject to the availability of accommodation and facilities.

A wide range of polytechnic courses offer such units from computing to psychology, history to astronomy for example – contact the Continuing Education Service for details of available associate student units, stating the academic area(s) you are interested in.

FOUNDATION STUDIES

From 1990 it is hoped to present a Foundation Studies programme to guarantee access on to courses at this polytechnic on the fulfilling of individual learning contracts. Contact Ann Hanson or the Combined Studies office for further details.

OPEN COLLEGE

The polytechnic and Lancaster University jointly validate 'Open College' courses which can be attended on a part-time basis at a number of colleges in the north-west region. The Open College is for adults only (over 21) and the courses are designed and taught with adults in mind. These courses provide an alternative to 'A' level qualifications and successful completion of appropriate modules is acceptable to the polytechnic as evidence of ability to benefit from higher education. Students with appropriate Open College units will be considered for places on degree, Higher National Diploma or other courses and may form part of the negotiated learning contract for the foundation course at this polytechnic.

Full details may be obtained from the Inter College Co-ordinator, Open College, Nelson and Colne College, Scotland Road, Reedyford, Nelson BB9, 7YT (Tel: (0282) 603151).

CREDIT EXEMPTION AND TRANSFER

It is possible for prospective students who have completed the whole or part of courses elsewhere to be considered for entry with advanced standing to courses at the polytechnic (ie entry to the second or subsequent years of a course). In particular, students who have completed Open University course units may be eligible for exemption from parts of courses offered by the polytechnic. Students can also claim exemptions from parts of many polytechnic courses because

of prior qualifications or experience.

Prospective students who wish to be considered for entry with advanced standing or to claim exemptions or credit are advised to contact the admission tutor of the course(s) in which they are interested.

INDEPENDENT STUDY

The polytechnic will try to assist individual research or enquiry projects whether or not they are related to a qualification. The library will help in any way it can, as will the Co-ordinator for Continuing Education.

HIGHER DEGREE STUDY

Whilst there are few taught Masters degrees at the polytechnic, it is in principle possible for mature students to do both CNAAs Masters and PhD research degrees at the polytechnic – see page 18 for further details.

ADVICE AND GUIDANCE FOR ADULTS

Mature students are encouraged to seek an advisory interview with the Co-ordinator for Continuing Education if they are considering entering higher education or are uncertain about which polytechnic provision may meet their individual needs. Similarly, mature students may wish to seek information on costs and grants before being committed, especially to full-time higher education. You are welcome to drop into the Continuing Education Service in Foster Building to pick up leaflets, ask for such advice or to clarify thoughts, and if we cannot help you we hope to be able to put you in touch with someone who can. We also have close contact with current and previous mature students who act as a valuable source of information and guidance, both before and during study at the polytechnic.

A special booklet is produced, aimed at the mature student considering polytechnic courses. There is also a free audio cassette tape 'It takes all sorts' which gives a vivid impression of what it is like to be a mature student at the polytechnic.

Both can be obtained from:

Ann Hanson

The Co-ordinator for Continuing Education
Lancashire Polytechnic
Preston PR1 2TQ

Tel. Preston (0772) 201201, Ext. 2014. ■

THE RACIAL EQUALITY UNIT

Head: Shamim Rehman BA

The Racial Equality Unit is located in the Foster Building of the polytechnic and has a full staffing complement of 6 Burnham and 2 NJC staff. REQU was established in January 1986 with the assistance of Home Office funding under Section 11 of the 1966 Local Government Act, based on a recognition that the polytechnic's response to the needs of all staff and students for life in a changing multi-racial British community was less than adequate. This initiative is part of the polytechnic's wider positive action programme designed to further equality of opportunity and remove discrimination on the grounds of race. REQU is the first unit of its kind in higher education.

REQU aims to promote the principles embodied in the Polytechnic Mission Statement regarding equality of opportunity and work towards removing any direct or indirect discrimination on the grounds of race, colour or ethnicity in line with the statutory duty under the 1976 Race Relations Act. REQU is intended to be a catalyst in assisting and supporting the polytechnic's staff and students to work towards this end.

The polytechnic recognises that it is the responsibility of all staff and students to promote policies and practices which do not discriminate on the grounds of race. It is anxious to ensure that an ethic of racial equality and justice pervades all aspects of its life.

REQU aims to facilitate this process by reviewing and recommending appropriate changes to the polytechnic's policies, procedures, customs and practices in order that they are informed by the principles and objectives of racial equality and justice. In recognition of the particular needs and experiences of black and minority ethnic students and staff, REQU staff teach in various faculties and work closely with all teaching and support services within the polytechnic to ensure that such needs are most appropriately met.

Some of the tasks REQU has been engaged in include the development of an ethnic

monitoring system for all students, and the formulation of a code of practice for the polytechnic as essential tools for reviewing, evaluating and recommending the appropriate changes in the polytechnic's response to its multi-racial community.

REQU also promotes programmes of staff development, establishment of courses to meet more appropriately the needs of black students and liaison with various external agencies such as the local and national black and ethnic minority communities, and other national and international bodies concerned with research and race-related matters in general. A European exchange programme aimed at developing comparative studies of the experiences of ethnic minorities in Britain and two Dutch universities has been established. In the future, it is intended that REQU will become a major centre of national and international reputation concerned with both the study of race-related matters as well as an agency of change in higher education working towards a more racially just and equal society.

Further information can be obtained from: The Racial Equality Unit, Lancashire Polytechnic, Preston PR1 2TQ. Tel. Preston (0772) 201201. ■

ENROLMENT REGISTRATION AND FEES

ADMISSION

ENROLMENT

Students accepted on a course are required to enrol. Enrolment normally takes place during the first week of the autumn term which includes an induction period for most new students. Details of the induction programme, the enrolment procedure and other necessary information for new students will be circulated where possible to successful applicants before the beginning of the session. This information will also be available from the Polytechnic Registry.

Tuition and certain other fees are payable at enrolment. Most full-time students are eligible for local authority grants and you will find further details concerning grants on page 25.

FEES

In addition to tuition fees, various fees may be payable in connection with a course, eg CNAAs, BTEC, registration fees. Details are as follows:

TUITION FEES

Tuition fees are normally payable at the beginning of the course each year. Payment in full is due at or before enrolment unless the student is to be grant aided by a local education authority or sponsored by an employer. Those students who are to receive a grant are required to produce written evidence of the offer of a grant covering the payment of tuition fees and those students whose employers undertake to pay the fees on their behalf must produce a letter from the employer at enrolment indicating that the latter accepts responsibility for the payment of fees. The student himself is, however, responsible for the payment of fees if for any reason the local education authority or the employer refuses to accept responsibility for payment. Tuition and other fees are reviewed annually, and it is therefore not possible to state the fees at the time of going to print. Details of fees can be obtained from the Polytechnic Registry and a copy of the fees list will be forwarded with each copy of this prospectus circulated after the fees have been determined. They are also contained in the

information booklet sent to all students accepted on courses. A full tuition fee is charged for the industrial training period(s) of sandwich courses.

CNAA REGISTRATION FEES

A registration fee is payable at the beginning of the first year of CNAA first degree courses and at the beginning of the DMS course. These fees are currently £55.00 and £27.50 respectively.

A registration fee is payable at the commencement of CNAA MPhil or PhD by research.

BUSINESS AND TECHNICIAN EDUCATION COUNCIL REGISTRATION FEES

A registration fee (currently £50.00) is payable by all students enrolling on BTEC Higher National Diploma courses for the first time. This fee will register the student with the Business and Technician Education Council for two years after the reported completion date.

EXAMINATION FEES

There are no fees for purely internal examinations of the polytechnic. Students are however required to pay fees for other examinations. Full details are also given on examination entry forms where these are supplied. For some courses, examinations fees are payable together with tuition fees and the procedure for payment is the same as for payment of tuition fees. In other cases examination fees are payable when the examination entry is submitted. In these cases accounts for examination fees are not sent to grant-aided authorities or employers but receipts are issued and may be used by students in appropriate cases to recover the expenditure from their local authority or other sponsoring body. An examination fee may be payable for a referred or resit examination.

RESIDENTIAL COURSES, VISITS ETC

Short residential courses, fieldwork trips and other visits may be associated with some full-time and sandwich courses. Where the course or visit is a mandatory element of a designated main course, students in receipt of a local authority maintenance grant will receive financial assistance from the polytechnic in respect of

expenditure incurred in accordance with the scale laid down by the Department of Education and Science for supplementary allowances to cover the needs of students attending non-maintained institutions, the level of reimbursement taking into account savings resulting from the students' absence from their normal place of residence. Where the residential course or visit is not an essential course requirement the polytechnic may offer some financial assistance to students in respect of expenditure incurred.

Details of residential courses and other visits and of the financial arrangements will be provided where possible in the information distributed to new students before the beginning of the session, copies of which will be available from the Polytechnic Registry.

COMPUTERISED STUDENT RECORD

The polytechnic operates a computerised student record. The record contains personal information, obtained from the enrolment form, about each student, together with details of each student's progress at the polytechnic. In addition to its use for the operation of courses and the administration of the polytechnic the computerised student record is used to generate the Further Education Statistical Return (FESR) to the Department of Education and Science.

The computerised record is subject to the Data Protection Act under which the holding and disclosure of personal information about individuals in a computerised form is regulated. No external body or person is permitted access to the record and, with the exception of FESR, no personalised details of the record of an individual student may be divulged outside the polytechnic without the agreement of that individual*. Under no circumstances will the record be made available to an external body for commercial purposes.

In accordance with the Data Protection Act, a student may obtain a copy of all the personal information relating to her/himself held in the computerised record from the Registry by completion of a request form and payment of a nominal fee. Each student will be provided with a free copy of the information held in the computerised record during each academic session. ■

*Except by order of a Court of Law

STUDENT REGULATIONS

Students are required to attend classes punctually and regularly, to carry out satisfactorily such work as is set by their tutors, and to sit the prescribed examinations. There are minimum requirements in all courses in respect of attendance, coursework, laboratory work, project work (where appropriate), and examinations, and the right to continue a course of study depends on the maintenance of satisfactory attendance and academic performance.

In some courses, there is a requirement to undertake one or more periods of practical training in industry, commerce or the professions, and progress in the course will depend upon the receipt of a satisfactory report on the standard of work achieved by the student whilst in a practical placement.

EXAMINATIONS AND ASSESSMENT

The tendency in most polytechnic courses is for the student's performance to be assessed on the basis of both formal examinations and course work, the proportion of each varying from course to course. Some courses still rely wholly on formal examinations for the assessment process whilst at the other extreme, in a few courses, there is an absence of all formal examinations, the assessment of student progress being made on the basis of essays, practical work, classwork, homework, etc. This latter approach is what is usually meant by 'continuous assessment'. Whichever method of assessment is used, however, every attempt is made to ensure that the assessment process does not entail undue pressure for the student.

GENERAL REGULATIONS AND DISCIPLINE

In any academic community there have to be rules of conduct to ensure the smooth running of the community and to safeguard the freedom of its members. The polytechnic pursues policies to promote equality of opportunity for all, without discrimination on grounds of race, creed or sex

and students are required not to promote racial prejudice, hatred or discrimination.

Students are accepted into polytechnic courses on the understanding that they abide by the regulations mentioned in the prospectus and from time to time in force.

The Director has authority to suspend students from attendance for any cause which he considers adequate. The Council will exclude from the polytechnic premises any student whose continued attendance is undesirable. Excluded students automatically lose membership of the Student's Union and polytechnic societies.

SAFETY IN THE POLYTECHNIC

The Health and Safety at Work Act 1974 imposes stringent requirements on educational institutions to maintain safe plant, safe systems of work, safe premises, etc. as well as the need to ensure adequate instruction, training and supervision to secure safe and healthy working conditions. All students have a duty under the Act to take reasonable care to avoid injury to themselves or others by their activities and to co-operate with those responsible in meeting statutory requirements.

EXAMINATION REGULATIONS

The polytechnic examination regulations approved by the Academic Board govern the conduct of all polytechnic examinations except where those regulations conflict with the regulations of an external body under whose auspices the examination is conducted, in which case the external rules have over-riding force. New students will be provided with an extract from the regulations concerning the conduct of candidates. The complete document can be consulted, if required, in the Polytechnic Registry. ■

ADMISSION

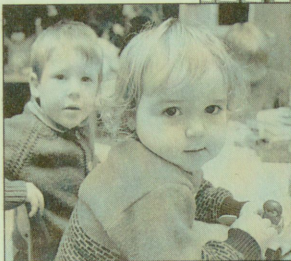


1



2

1. WINDSURFING—
MERE BROW
2. FELL WALKING IN
THE LAKE DISTRICT
3. PRE-SCHOOL
CENTRE
4. CAREERS CENTRE



3



4

STUDENT SERVICES

Head: John Greer DipADes DMS

The challenges and demands made on students undertaking a polytechnic course may arise from the adjustment to a larger and more varied environment, unfamiliar living conditions, health or financial needs, making new relationships, coping with personal or family problems, study pressures and career choices and decisions. Many of these are normal needs and experiences, whilst others may be of a deeper nature and concern. Help may be required for example in finding accommodation, obtaining medical treatment or advice, dealing with transitional needs or more long standing personal feelings or difficulties, or obtaining information on career opportunities. The staff of Student Services are available to assist in these matters and many students make use of these services during their time at the polytechnic.

PHYSICAL EDUCATION AND RECREATION

This section is based on the indoor facilities adjacent to the Foster Building on the main polytechnic campus. These facilities provide a small sports centre which comprises a sports hall (34 metres x 19 metres), a general activities room (15 metres x 9 metres), and a fitness and conditioning area (10 metres x 9 metres), along with changing rooms, as well as the physical education staff office. Squash courts and a swimming pool lie within half-a-mile of the polytechnic playing fields for outdoor team games and athletics are being developed by the polytechnic on a 60 acre site only 2 miles from the main campus.

It is the policy of the section to provide an enjoyable, balanced and wide programme of activities to help meet the physical, social, emotional aesthetic and occupational needs of individual students through recreative and competitive situations. The Students' Union run their own sports clubs through their Sports Council and the opportunity exists to participate in British Polytechnic Sports Association competitions.

At present the following activities are catered for: athletics, badminton, basketball, canoeing, cricket, dance, fencing, fitness-training, five-a-side football, golf, hockey, jogging, martial arts (judo, taekwon-do and aikido), mountaineering, netball, rugby, (union and league), sailing, skiing, soccer, squash, swimming, table-tennis, tennis, volleyball, weight-training and yoga.

Inter-departmental competitions and individual tournaments prove to be very popular with students and some of the more active staff. Well established competitions run in soccer (indoor and outdoor), rugby, basketball, cross-country running, badminton, tennis and skiing.

The polytechnic is situated within easy reach of the Lake District National Park and the Yorkshire Dales National Park. These two areas along with the more immediate countryside provide a rich environment for a full range of land and water based outdoor pursuit activities.

The recreative and sporting programme is available to all full-time and part-time students as well as staff.

For further information and all bookings contact the physical education staff.

CAREERS ADVISORY SERVICE

The Careers Centre in H214 is open five days a week throughout the year, except for public holidays. Students are welcome to make full use of the facilities. Appointments are necessary only if you wish to see a Careers Adviser.

Students need to give time and thought to decisions and choices about their future if they are to take advantage of the range of developing opportunities available in our rapidly changing society. They are encouraged to use the range of resources offered by the service before their final year. Interviews with the careers advisers which are of a personal and confidential nature allow for informal discussion and the opportunity to talk over uncertainties, develop plans for personal career exploration and make informed choices and decisions.

The Careers Centre provides a wide range of information on occupations and professions, employers and the opportunities they offer and

STUDENT
SERVICES

on further study courses in polytechnics, universities and other institutions of higher education. Details of postgraduate awards and scholarships are also provided. A series of careers video tapes are available for individual or group viewing. To assist students in their job search the service holds workshops on application strategy and interview techniques and arranges 'mock' job interviews. Every spring term employers visit the polytechnic on the annual 'Milkround' recruitment campaign, to interview final year students.

During the autumn term a Careers Fair is arranged to bring employers and professional bodies into the polytechnic to meet students. Vacancy bulletins are distributed throughout the polytechnic during the academic year. The service is also available to those students who for whatever reason do not complete their course and assistance is given in exploring alternative opportunities.

COUNSELLING SERVICE

The Counselling Service is completely confidential and concerned with the personal needs, difficulties and problems students encounter while they are at the polytechnic. Students consult counsellors about various matters, social, academic and personal, or simply because they require information or practical advice. Some students have particular or mental handicap, others have deep-rooted psychological difficulties and use the Counselling Service for long-term counselling or psychotherapy.

As well as helping students resolve difficulties, the counsellors spend much of their time in developmental activities with individuals or groups. These aspects of the service are concerned with increasing personal awareness and growth and include study methods and skills, relaxation and meditation techniques and learning to relate to others more creatively.

Counselling provides an understanding and non-judgemental atmosphere in which students can learn to understand and accept themselves and others, to approach their lives with greater confidence and to live them more authentically. The counsellors do not impose their own values or perspectives but seek at all times to facilitate self-awareness and autonomy in those who seek their help.

PRE-SCHOOL CENTRE

The Polytechnic Pre-school Centre currently provides facilities for forty eight children between the ages of two and five years. The Pre-school Centre is open Monday to Friday inclusive during term time and the two sessions system operated enables students to match child care needs to study requirements. The sessions are 8.45 am to 1.00 pm and 1.00 pm to 5.15 pm with lunch between 12 noon 1.00 pm. Full-time places are available.

The charges per session for 1988/89 are:
Staff: £3.00
Student: £1.25
(increases in line with inflation are expected for 1990/91).

The cost of lunch is 50p and there is a free milk allowance of $\frac{1}{3}$ of a pint per day per child.

The Pre-school Centre is conveniently situated for most polytechnic buildings in Hanover Building, Kirkham Street and close to a town bus route. Newly opened in September 1988 and purpose-built, we have a large range of toys, books and equipment to develop your child's individual needs. Artwork, music, dance, mime, singing and educational computer games along with a spacious outdoor play area provide a safe and stimulating environment for your child.

The Pre-school Centre is run by managers, Christine Cross and Brenda Taylor. All the staff, including the six nursery nurses, are fully qualified nursery nurses.

For further information please contact:
Pre-school Manager
Telephone Preston (0772) 201201 ext. 2084

HEALTH CENTRE

The polytechnic operates a full-time Health Centre during term time, with medical and nursing staff, treating minor accidents and sickness and advising on health problems generally.

Students who will be living away from home are strongly advised to bring their national health medical cards with them and register with a polytechnic doctor or any other local general practitioner.

MULTI-FAITH CENTRE

If you have faith and wish to worship and meet fellow believers; if you have no belief but wish to

enquire and discuss, or if you simply want to question, we are available.

The centre can be used by all staff and students and is served by a team representing most major world faiths, co-ordinated by the full-time chaplain. Close links with, and information about, all faiths within the institution and Preston are available to be made use of.

We are not only here to enable worship but also for discussion and debate to encourage fellowship and to provide a meeting point for all. During each term, services, events and meetings are held which are publicised at the centre and around the campus. We work with student groups and have contact with community groups to stimulate that sense of belonging.

We are also seen in the refectory, bars and loitering around the campus; we can be reached at home as well as through Student Services and the Multi-faith Centre.

OVERSEAS STUDENTS ADVISER

The polytechnic recognises that students from overseas have specific needs and can often experience certain difficulties especially when studying in Britain for the first time. As a result, the polytechnic has appointed a special adviser to provide information, advice and assistance on all matters concerning students from overseas.

In some instances, students may be referred to other members of staff with specialist knowledge, experience or responsibilities, or, indeed, to individuals or organisations external to the polytechnic.

The Overseas Students' Adviser has regular links with the Overseas Student Society of the Students' Union. The society organises various social events throughout the year to which all students are invited.

STUDENTS WITH SPECIAL NEEDS

Lancashire Polytechnic is concerned to provide an educational experience of the highest quality for all students. To achieve this some students might require additional help and support from the Special Needs section. This consists of the Adviser for Students with Special Needs who is responsible mainly for academic affairs, and the Special Needs Students' Welfare Officer who can help with matters relating to grants, welfare, provision of special equipment and accommodation.

The polytechnic has close links with the National Bureau for Handicapped Students and with other organisations. At all times those working in this section encourage and welcome the participation and involvement of the students they are trying to serve. Students with special needs should contact the Special Needs Adviser, Alan Hurst or Catherine Badminton the Welfare Officer with particular responsibility for students with special needs. See also page 24.

ACCOMMODATION SERVICE

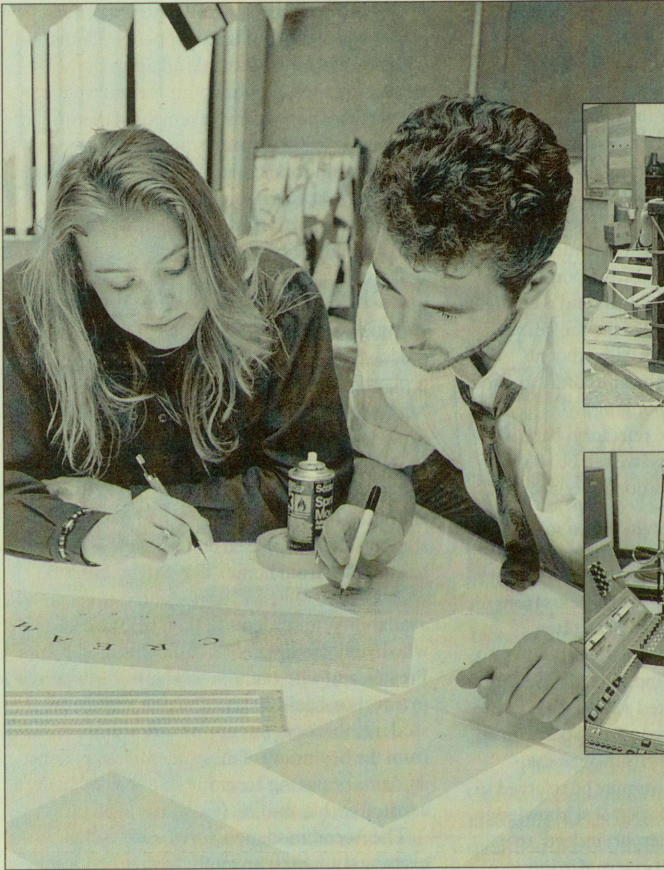
An increasing number of students attending the polytechnic expect to live away from home and it is the concern of the polytechnic, through its Accommodation Officers and residences staff to provide suitable accommodation for these students.

The polytechnic has formed a policy for the allocation of accommodation to first year students, broadly based on the distance a student has to travel from home. The polytechnic will endeavour to offer accommodation subject to availability, to students in their first year of study who live approximately 30 miles, or more, from Preston and who cannot reasonably be expected to travel on a daily basis. The vast majority of students to whom this applies are accommodated from the beginning of the academic year. Other students requiring accommodation are usually assisted within the first few weeks of term.

The Accommodation Service also helps existing students who might wish to change their accommodation during the first year, as well as assisting them in finding suitable accommodation for the remainder of their time at Lancashire Polytechnic.

The Accommodation Service also offers comprehensive advice on any general tenancy queries, on leases, licences, housing benefits and complaints or queries regarding gas and electricity supplies. It also maintains a library of advisory leaflets on a large range of housing-related subjects, all of which are readily available to students.

The Accommodation Office is situated within the Student Services premises in Harris Building. See also Residential Services page 121. ■



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1. GRAPHIC DESIGN
STUDIO
2. ART & DESIGN
FOUNDATION
STUDIES
3. JOURNALISM
RECORDING STUDIO
4. FASHION COMPUTER
CENTRE

FACULTY OF ARTS

Dean of Faculty: Professor Christine E King

BA MA PhD

Faculty Registrar: Joyce Newton

BA (HONS) FASHION

BA (HONS) FINE ART

BA (HONS) GRAPHIC DESIGN

BA (HONS)/BA/DipHE/POLYTECHNIC
ADVANCED CERTIFICATE COMBINED
STUDIES OPTIONS: HISTORY, ENGLISH,
FRENCH, GERMAN, LINGUISTICS,
AMERICAN STUDIES, HISTORY AND
THEORY OF ART AND DESIGN, *MUSIC,
*WOMENS STUDIES

HIGHER NATIONAL DIPLOMA
IN DESIGN
(THREE-DIMENSIONAL STUDIES)

*HIGHER NATIONAL DIPLOMA
IN PRODUCT DESIGN

POLYTECHNIC CERTIFICATE IN ART
AND DESIGN

POSTGRADUATE DIPLOMA IN RADIO
AND TELEVISION JOURNALISM

POSTGRADUATE DIPLOMA IN
NEWSPAPER JOURNALISM

NCTJ NEWSPAPER JOURNALISM

* Subject to approval

The Faculty of Arts was created in July 1985 from an amalgamation of Humanities and Journalism with the former Faculty of Art and Design. The Faculty of Arts now encompasses a wide range of subjects including Art, Design, Fashion, History, Languages, Literature, Journalism and Music.

The School of Historical and Critical Studies and the School of Language and Literature make a substantial input into the polytechnic's Combined Studies Programme. This degree enables students to combine two or three subjects from a wide range including the humanities, the social studies and the sciences. To this programme the faculty contributes: History, English, French, Linguistics, American

Studies and History and Theory of Art and Design. Students have a great deal of choice and can study their chosen subject either to considerable depth or set in the broader context of other subjects. All these subjects lead to interesting career possibilities or to further study. Details of the Combined Studies Programme are shown on page 115 of this prospectus. A range of part-time courses are also offered and students interested in these courses should refer to the part-time prospectus.

The faculty is one of the 49 centres in England and Wales approved by the Council for National Academic Awards to offer courses leading to the degree of BA with Honours in the various Art and Design areas. Lancashire Polytechnic is one of six centres in Britain operating the one-year pre-entry course in Newspaper Journalism, run in conjunction with the National Council for the Training of Journalists.

The course in Fine Art provides opportunity for fundamental studies in the practice, history and philosophy of art, providing a basis for the practice of art, teaching in schools of general education, and for subsequent specialisation in a wide range of activities. Advanced studies in the history and philosophy of art and design contribute to students' ability to work successfully in increasingly complex fields, as well as to their general intellectual development.

The two degree courses in Design, BA (Hons) in Fashion and BA (Hons) in Graphic Design have strong links with their respective industries. Both courses have a six month sandwich element in the third year with placements in the UK and abroad. The HND Design (Three-Dimensional Studies) provides an opportunity to study a wide range of craft processes and develop skills appropriate to employment as designer craftsman in industry or to employment in independent workshops for those wishing to design, make and sell their own work.

There are good facilities within the faculty for small-scale production using industrial techniques in a number of fields (e.g.

FACULTY
OF ARTS

photography, letterpress and lithographic printing, garment production, ceramics and industrial design) and these, together with facilities for the practice of fine art in two and three dimensions, are constantly being extended as new needs and new technical processes emerge.

Lancashire Polytechnic's broadcasting studios and equipment are amongst the best in higher education in the United Kingdom. They include three radio studios, equipped to full broadcasting standard, a well-equipped television studio with outside broadcast cameras, a control room and editing suite. The newsroom is equipped with telephones, video facilities and word processors to enable students to experience a 'newsroom' environment. The faculty provides facilities for the production of the students' own professionally-printed tabloid newspaper.

Art and Design undergraduate work is housed primarily in Victoria Building, which also has a major exhibition area. Parts of the faculty's Fine Arts work is housed in nearby Hanover Building where there are paint studios.

The Polytechnic Certificate in Art and Design is housed at Avenham Annexe in Preston. Journalism courses are accommodated in Colonial Building, adjacent to the main polytechnic building.

The faculty runs and is responsible for a number of options on the Combined Studies degree programme, details and entry qualifications are given on page 115.

QUALIFICATIONS FOR ENTRY

FULL-TIME DEGREE COURSES

In the selection of students for degree courses, the selection panels will place emphasis upon evidence of creative ability in Art and Design and, for the purpose of demonstrating this evidence, the completion of a Foundation Course in Art and Design represents the preferred entry qualification. Except in the case of the Foundation Course a student shall not normally be admitted to the course unless he or she will have attained the age of 18 years by 31 December in the year of entry. Foundation Course students should have attained the age of 17 years by 31 December in the year of entry.

NORMAL ENTRY QUALIFICATIONS

- A General Certificate of Education/GCSE with

passes in five subjects, including two subjects at Advanced level, or

- A General Certificate of Education/GCSE with passes in four subjects, including three subjects at Advanced level, or

- A Scottish Certificate of Education with passes in five subjects of which three are at Higher Grade, or

- A Scottish Certificate of Education with passes in four subjects, all at the Higher Grade, or

- An Ordinary National Certificate or Diploma at a good standard, or

- The satisfactory completion of a full-time Foundation Course in Art and Design of not less than one academic year in length, together with one of the following:

- 1 A GCSE/GCE with passes in five subjects at Ordinary level, or

- 2 GCSE/GCE with passes in four subjects including one at Advanced level, or

- 3 Such qualifications as the Council for National Academic Awards considers to be acceptable in lieu of 1 and 2 above

or such other qualifications as the Council for National Academic Awards deems to be acceptable in lieu of those specified above.

However, it should be noted that the possession of the entry qualifications specified above does not in itself entitle an applicant to be admitted to a course.

For the purpose of the above regulations, passes at Grade 1 in the Certificate of Secondary Education are acceptable in place of passes at GCSE/'O' level. The term 'pass' refers to the attainment of grades A, B or C in Ordinary Grade examinations of the Scottish Certificate of Education. Applicants must have a sufficient command of English to benefit from the course.

The polytechnic may exercise its discretion, to admit a student whose qualifications do not conform to the standard minimum entrance requirements but who present other evidence which, in the opinion of the polytechnic, indicates that he or she has the capacity and attainment to pursue the course of study proposed.

ADMISSION PROCEDURE

ART AND DESIGN DEGREE AND HIGHER NATIONAL DIPLOMA COURSES

Most applicants for the above courses, normally apply via application forms issued by the Art and

Design Admissions Registry, Penn House, 9 Broad Street, Hereford HR4 9AP. (Forms are usually issued to heads of schools and colleges in January.) However any student, who for whatever reason, is only able to consider a course in Preston, can apply direct to the polytechnic using a polytechnic application form.

POLYTECHNIC CERTIFICATE IN ART AND DESIGN

Polytechnic application forms should be used – see the note on application on page 23 of this prospectus.

QUALIFICATIONS FOR ENTRY

NCTJ NEWSPAPER JOURNALISM

Entrants require a minimum of two 'A' levels.

Applicants are required to sit a written test of their grammatical ability, current affairs knowledge and general news sense. The test is a requirement of the National Council for the Training of Journalists.

POSTGRADUATE DIPLOMAS IN NEWSPAPER JOURNALISM AND RADIO AND TELEVISION JOURNALISM

Applicants must hold a degree of a British polytechnic or university, or of an equivalent institution. However, exceptions may be made for mature students with relevant career backgrounds.

GRANTS FOR JOURNALISM COURSES

Graduates wishing to apply for further grants should contact their local education authority/ Scottish Education Department (as appropriate) at the beginning of the application process.

ADMISSION PROCEDURE

JOURNALISM COURSES

Application forms may be obtained from:

The School Clerk
School of Journalism
Lancashire Polytechnic
Preston PR1 2TQ
Tel: Preston (0772) 201201 ■

SCHOOL OF DESIGN

Head of School: Michael P James DipAd

BA (HONS) GRAPHIC DESIGN

Course Leader: to be appointed

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A four-year sandwich course leading to the award of BA with Honours. Students spend approximately 10 terms in the polytechnic and six months in industry during the four years of the course. The period of industrial training occurs between the third and fourth years of the course, and students are paid wages roughly equal to the weekly value of a major award or grant. The Faculty of Arts has obtained the co-operation of a variety of industrial and commercial organisations, and each student's abilities and interests are matched to the particular opportunities that each firm can provide.

Graphic Design covers a wide range of activities and the course prepares students for a variety of professional roles in many different kinds of organisations. After common 1st and 2nd years students select an option which enables them to acquire expertise in a particular professional field.

GENERAL GRAPHIC DESIGN

For students who intend to find their first employment with publishers, design groups, in-house graphic design units, advertising agencies etc. The emphasis is on design for print production, but students also design for other media, in particular film and television (including computer animation) and packaging. There is an emphasis on the design of emotive images of the kind that are particularly important in advertising and promotional work, but students also undertake projects that require the communication of more factual information and the achievement of stylistic consistency across many items, as in the design of corporate identities. Typography, including book and magazine work as well as more ephemeral items, is seen as a particularly important study for students taking up this option, and it therefore plays a major role in the majority of projects.

THREE-DIMENSIONAL GRAPHICS

For students who wish to work in three dimensions, and who intend to find their first employment as members of design teams responsible for exhibitions, point of sale displays, packaging and other similar three-dimensional items. They will be equipped to work on advertising and promotional schemes of the kind undertaken by agencies and in-house design groups and to contribute three-dimensional but essentially graphic material projects under the general control of architects and interior designers.

ADVERTISING

For students who have the ability and interest in creative advertising who wish to become art directors or copy writers. Extensive facilities, particularly in a/v and video, ensure that projects can be realised to a standard comparable with industry, though stress is placed on producing ideas. Success in the D & AD post office award scheme has helped the course to achieve a reputation and consolidate links with advertising agencies. As team work is a feature of the advertising industry, students are encouraged to work on a number of group projects.

COURSE OBJECTIVES

The aim of the course is to ensure that students acquire the capacity to analyse visual communication problems and propose imaginative solutions. At the same time, students gain an understanding of the nature of the organisational frameworks within which they must work. Students also acquire the basic knowledge which will enable them to co-operate with specialists in such fields as motivational research, market research, educational technology and advertising.

CURRICULUM

1ST YEAR

- Introduction to graphic design
- Typographic design and practical typography
- Three-dimensional design
- Photography
- Preparation of art work
- Production technology
- Psychology
- History & theory of art and design
- History of design & history of graphics

Course duration: September to July (35 weeks)

Assessment: Internal assessment.

2ND YEAR

- Design
- Typography
- Production technology
- History of art and design
- History of design & history of graphics.

Course duration: September to July (35 weeks)

Assessment: Internal assessment.

3RD YEAR

- Design
- Photography
- Marketing and professional practice
- History & theory of art and design
- History of design and graphics

Course duration: September to March (24 weeks) (+ 26 weeks in industry)

Assessment: Internal assessment.

4TH YEAR

- Design
- Dissertation.

Course duration: October to July (29 weeks)

Assessment: Final degree assessment of practical work and dissertation.

CAREERS IN GRAPHIC DESIGN

The graphic designer is primarily concerned with the design of such printed items as books, newspapers, magazines, posters, advertising material, packaging and certain kinds of display material, but his work also includes other kinds of visual communication by means of drawn, painted, photographic and three-dimensional images and symbols.

The importance of good graphic design is widely recognised in industry and commerce, not only for advertising purposes but also in publishing, the promotion and training departments of private and nationalised industries, film and television studios, government departments and many other related fields.

There is a well established need for designers who have a good educational background and whose training equips them to take charge of the design and production of

printed matter from the time when it is first commissioned to its eventual production, often in many thousands of copies. The designer may be required not only to take charge of the visual aspects of the work but also to make detailed analysis of his client's practical needs, to commission specialists in such fields as illustration and photography, and to control production of the finished product.

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OF ARTS

HIGHER NATIONAL DIPLOMA IN DESIGN (THREE- DIMENSIONAL STUDIES)

Course Leader: Dave Harper

This is a two-year full time course for students interested in a professional career in wood, metal, ceramics and glass. The course includes the study of both studio and industrial design and production and leads to a Higher National Diploma in Design awarded by the Business and Technician Education Council (BTEC). Students are also encouraged to apply for Diploma Membership of the Chartered Society of Designers and Licentiateship of the Society of Designer Craftsmen.

The course is seen as having three major phases: the development of skills and sensibilities in handling of materials and the production of models, prototypes and finished three dimensional work to professional standard; the development of problem solving abilities through design and workshop activity; and the development of individual qualities of design and craftwork through a creative response to practical problems and personal ideas.

QUALIFICATIONS FOR ENTRY

Applicants must be 18 years of age by 31 December in the year of entry and hold

- A BTEC Diploma in Three-dimensional Design, Design Crafts, Industrial Design, or General Vocational Design, or
- A BTEC Certificate in the above subjects, with additional experience, or
- Attainment comparable with a BTEC Diploma, with relevant knowledge and skills i.e. a Foundation Course in Art and Design or relevant employment experience.

Applicants will be required to attend an interview and to present a portfolio of their work.

CURRICULUM

1ST YEAR

- Drawing
- Craft practice
- Industrial practice
- Decorative techniques
- Design process
- Design and craft projects
- History of design
- Business studies
- Professional practice
- materials and production technology

Course duration: September to July (35 weeks)

Assessment: Internal.

2ND YEAR

As above.

Course duration: September to July (35 weeks)

Assessment: Internal examination and assessment with external moderation by BTEC. Direct admission scheme for Diploma Membership of the CSD. External assessment for Licentiatehip of SDC.

CAREERS IN DESIGN CRAFTS

In the field of art and design, craft activity is playing an increasingly important role. Many more students are interested in pursuing artist-craft and designer-craft studies as a means of combining a personal desire for individual creative expression and potentially good vocational opportunities.

Today greater emphasis is placed on the possibilities of designing, making and selling ones own creative work, or working with others as a craftsman in a small studio workshop, craft centre or similar environment. These situations to many people provide the ideal opportunity to practice as an individual artist or designer and have a direct commercial outlet for their creative work. Equally relevant is the fact that areas of product manufacturing industry are employing designers who have the same or similar highly developed craft skills as those required in studio workshops and craft centres. These practical skills are valued because they can always be put to good use solving the diverse problems of

studios tackling a wide range of product development work.

Personal choice of career or life style in general depends on individual interests, aptitudes and ambitions, but certain craft skills and sensibilities are universally valued and these can open up a wide range of vocational possibilities. It is with the development of specific craft skills and design sensibilities in individuals that this course is concerned. Encouraging the application of intelligence and imagination is also provided, as is the fostering of appropriate personal and professional attitudes but the primary concern is with achieving a balance of particular skills, technical knowledge, aesthetic appreciation and design ability.

* HIGHER NATIONAL DIPLOMA IN PRODUCT DESIGN

Course Leader: Dr Jim Birchall

This is an interdisciplinary three year sandwich course open to applicants from a wide educational background who wish to enter the industrial and product design profession.

Industrial and product designers are concerned with the design and development of a vast range of products from electronic guitars to fork lift trucks and from calculators to body scanners.

The course has been developed from a considerable range of disciplines within the polytechnic including industrial design, engineering, computing, marketing and history and theory of design. The course provides a rich and closely integrated blending of industrial design and engineering design education that focuses on product design.

The course has two distinct phases. Firstly the development of skills and attitudes from the respective fields of visual design and product engineering needed to practice product design and is primarily learning based; and the professional practice of design which is primarily applications and project based.

QUALIFICATIONS FOR ENTRY

Applicants must be 18 years of age by 31 December in the year of entry and hold:

■ 5 GCSE/GCE subjects including one 'A' level, or equivalent, one of which must be Mathematics or a Science.

■ 4 GCSE/GCE subjects including two 'A' levels, one of which must be Mathematics or a Science.

■ A BTEC OND in Design, Engineering or Science.

■ Attainments comparable with the above eg a Foundation Course in Art and Design or relevant employment experience, provided that a Mathematics or a Science subject has been passed at GCSE/'O' level, or their equivalent.

Exceptionally, the polytechnic may exercise its discretion to admit applicants even though their entry qualifications do not conform to the standard minimum requirements, so long as they can produce evidence which in the opinion of the polytechnic indicates that they have the capacity and attainment to successfully pursue the course.

CAREERS IN PRODUCT DESIGN

Product design is a creative activity concerned with the design of products manufactured in quantity by industry. Typically the product designer works in a design team alongside other specialists such as production engineers and marketing managers.

The role of the product designer is being increasingly recognised as a vital factor in the successful development of all industrial products.

Employers are now in need of capable professional product designers who can combine design and visual studies with mathematics and engineering to create viable product designs.

There is now a steady demand for product designers either in industrial practice or in private practice with design development groups.

* subject to approval

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CURRICULUM

1ST YEAR

- Product design
- Industrial design
- Engineering design
- Information technology
- History and theory of design

Course duration: September to July (35 weeks)

Assessment: Internal.

2ND YEAR

- Product design
- Design for manufacture
- Ergonomics and design
- Computer aided drawing and design
- Professional practice

Course duration: September to March (24 weeks) (+ 20 weeks in industry)

Assessment: Internal, BTEC moderated.

3RD YEAR

- Business studies
- Product design
- Major product design project

Course duration: September to July (35 weeks)

Assessment: Internal, BTEC moderated.

SCHOOL OF FASHION AND FINE ART

Head of School: Glenda Brindle

FACULTY
OF ARTS

BA (HONS) FASHION

Course Leader: Gillian Sandford

A four-year course incorporating industrial placement, leading to BA with Honours. In the third year of the course the students spend a 26 week period in industry. Through close and continuing liaison, the school has developed connections with various industrial and commercial fashion groups. The needs and abilities of individual students are carefully considered when arranging the placement with one of these companies which may be either in the UK or Europe.

The principle aim of the course is to prepare students for the role of either professional designer or within complimentary areas such as marketing and promotions.

Through projects the course enables students to develop a personal design ability in conjunction with a thorough practical knowledge of clothing and knitwear manufacture. Particular importance is placed on the influence of production and marketing factors and the development of a personal design sense. In the case of the marketing promotions students the course produces graduates with a thorough knowledge of the fashion industry who are able to interpret and respond to market requirements. This is achieved by combining both practical and theoretical understanding of promotion and marketing skills alongside an awareness of fashion design.

In both areas of the course design sensibility is further developed and contextualised by the provision of a background in the history, philosophy and appreciation of the visual arts. Students are further encouraged to regard the numerous industrial production processes and commercial organisations as the media through which their creative ideas may be realised.

Our many contacts with manufacturers in

both the fashion and knitwear industries agree that this course structure is ideally suited for the education of designers intending to find employment with them or for students wishing to enter into the area of promotion or marketing within the industry.

CURRICULUM

1ST YEAR

■ Fashion study and design, related design studies, technical studies, historical studies. Students also make a visit to galleries, fashion houses, etc in London.

Students, through consultation may begin to specialise in fashion or fashion knitwear design.

Course duration: October to July (35 weeks)

Examinations: Internal assessment.

2ND YEAR

■ Fashion study and design, technical and business studies, historical studies.

Marketing and promotion via lectures and projects aimed at exploring these areas. Students also make a visit to galleries, fashion houses, market research companies etc in London.

Course duration: October to July (35 weeks)

Assessment: Internal assessment.

3RD YEAR

■ Fashion study and design, technical and historical studies.

Consolidation of marketing skills, via lectures and projects.

Course duration: 14 weeks (+ 26 weeks in industry)

Assessment: Internal assessment.

4TH YEAR

■ Fashion study and design, technical and business studies.

Marketing/promotion projects working towards a chosen career direction, dissertation.

A mandatory part of the course is a visit to a major European Fashion Centre.

Course duration: October to July (35 weeks)

Assessment: Final degree assessment of practical work, designs and an in-depth presentation and evaluation in an area such as forecasting,

marketing schemes based around a company etc and dissertation.

CAREERS IN FINE ART

It is the talented young British designers who set world trends in fashion. These young people, the great majority trained in schools of art and design, are in touch with contemporary trends not only in clothing but also in the arts generally.

In both the clothing and knitwear industries there are good career opportunities for lively creative designers with a knowledge and appreciation of modern production and commercial processes. The clothing industry in being design intensive offers numerous career opportunities for young designers who often gravitate to specialisation in other areas of the industry – for example buying, range co-ordination and design management, occupations which require imagination and an understanding of the fashion industry as a totality.

Manufacturers usually specialise in a particular category or range of garments either using mass production techniques to meet the ever increasing demand for well designed, but inexpensive clothes, or small scale manufacture for the more exclusive ranges.

Equally a company may specialise in the manufacture of young fashion, knitwear or childrens wear and a designer may choose to specialise in any one of these areas.

BA (HONS) FINE ART

Course Leader: David Alker

This is a three year full-time course leading to the award of BA (Hons) Fine Art. The course aims to train students in all aspects of fine art practice and to enable students to realise their creative potential.

The course has access to excellently equipped workshop and studio facilities for the principal study areas of painting, sculpture, printmaking and time-based media (film/video/performance). The course also includes, drawing, photography, computer-based artwork and history and theory of art and design (approximately 1 day a week). The course is a mixture of project work and student directed work.

CURRICULUM

1ST YEAR

■ Teaching is related to the development of technical skills in the various studios and workshops (eg print-etching, silkscreen, lithography). Students work in two of the main studio areas during the year. There is a taught course in drawing, and history and theory of art.

2ND YEAR

■ The second year syllabus encourages experimentation with media and the development of ideas related to 'audience' and public art. The course offers also optional areas of study in community arts and illustration. Towards the end of the year students develop their own studio work. History and theory of art occupies one day a week.

3RD YEAR

■ Aims to establish a professional standard of work and resolution of ideas. There are regular studio tutorials and lectures/seminars related to professional practice. Students submit a 5,000 word thesis for history and theory of art assessments.

Assessment: Takes place at the end of each year and during the middle term of year 1.

CAREERS IN FINE ART

On graduation students have gone onto further study in illustration, computer aided design, art theory and criticism, arts administration and fine art. Career outlets have included community arts, art therapy, teaching/lecturing, illustration, video production and graphic design.

POLYTECHNIC CERTIFICATE IN ART AND DESIGN

Course Leader: Pete Clarke

A one year full-time course which provides a basic education in the practice, history and philosophy of art and design for:

- Students wishing to proceed to advanced specialist courses in one or other of the various branches of design for industry, or
- Those wishing to pursue courses leading to honours degrees in Art and Design.

FACULTY
OF ARTS

QUALIFICATIONS FOR ENTRY

Applicants should be not less than 17 years of age by 31 December of the year of entry.

Applicants will normally be required to have the general education attainment specified by the Council for entry to first degree courses in Art and Design, i.e.

- A GCSE/GCE with passes (grades A, B or C) in five subjects, or
- A General Certificate of Education/GCSE with passes in four subjects, including one subject at Advanced level, or
- Such qualifications as the Council deems to be acceptable in lieu of above.

Note: Passes at Grade 1 in the Certificate of Secondary Education are acceptable in place of passes at Ordinary level in the General Certificate of Education or GCSE.

Applicants who expect to meet these requirements when applying for admission to the course but fail to do so may be admitted to the course on the understanding that they will re-take the subjects in which they have failed.

Exceptionally, students who do not meet the normal general education requirements for entry may be admitted if they show special ability in, and a deep commitment to, Art and Design with a view to applying ultimately to a higher BTEC course. Applications should be made as early as possible in the year of entry.

COURSE OBJECTIVES

The Foundation Course has two principal objectives: one, to introduce students to the wide range of activities that are collected under the general title of Art and Design, so that candidates for admission to degree or other advanced courses can make an informed choice as to which course or courses to apply for; the other, to enable students to acquire the basic knowledge and skills that will be required on entry to an advanced course in Art and Design. The course also enables students to produce a folio of original creative work which is of the standard expected by polytechnics and colleges offering honours degree courses in Art and Design.

CURRICULUM

Communications, visual studies, drawing, painting, three-dimensional construction, visual perception and the use of colour. Opportunities

are provided for work with specialist staff from the BA honours degree courses, and with visiting staff who have their own professional design practices. All students take a course in History and Theory of Art and Design and are expected to take part in a three-day residential visit and one-day visits away from college.

Course duration: September to July (35 weeks)

ENTRY TO ADVANCED COURSES

Students prepare a folio of work for submission to the selection boards of BA and other advanced courses and staff provide information and advice on the courses most likely to meet each students' individual needs. ■

SCHOOL OF HISTORICAL AND CRITICAL STUDIES

Head of School: Rex Pope BA MLitt PhD

BA (HONS)/BA/DipHE/POLYTECHNIC
ADVANCED CERTIFICATE COMBINED
STUDIES INCLUDING: HISTORY (TO
MAJOR, JOINT OR MINOR HONOURS),
*WOMENS STUDIES (TO MAJOR, JOINT
OR MINOR HONOURS), HISTORY AND
THEORY OF ART AND DESIGN, (TO
MINOR HONOURS)

* Subject to approval

The school offers the above subjects within the Combined Studies degree programme. Degree titles will reflect the study programme e.g. BA (Hons) History with History and Theory of Art and Design (History major, History and Theory of Art and Design minor); BA (Hons) Womens' Studies and History (joint honours in the two subjects).

The Combined Studies programme is based on a number of course units, each weighted in terms of credits. A student requires 104 credits for an honours degree, 94 credits for an unclassified degree, 66 credits for a Diploma in Higher Education and 34 credits for a Polytechnic Advanced Certificate.

PROGRAMME

History and Theory of Art and Design course units on offer in 1990-91 are as follows:

STAGE 1

■ Introduction to the history and theory of art and design.

STAGE 2, LEVEL 2

■ Modernism and modernity: aspects of the European tradition c. 1850-1950.

STAGE 2, LEVEL 3

■ Modernism and post-modernity in contemporary art and design.

History course units on offer in 1990-91 are as follows:

STAGE 1

■ The nature and methods of history, Urbanisation, Nationalism and racism in history, Revolutions in history.

STAGE 2, LEVEL 2

■ Sources and methods in history, mediaeval church and society, crime and disorder in early modern England, Britain's industrial development c. 1700-1914, revolutionary Europe 1789-1851, issues in the history of the English working class, 1790-1848, British labour c. 1800-1914, issues in the social history of English education c. 1830-1939, the experience of women in Britain c. 1860-1930, war and society – the Second World War and after, world affairs post 1945, the USA c. 1850-1917, the USA c. 1917-present day, history and film, history and computing, the thirties, images and reality – women in modern British society I, images and reality – women in modern British society II.

STAGE 2, LEVEL 3

■ The history of ideas in the eighteenth century, popular leisure and society 1780-1914, Lancashire during the industrial revolution, unemployment and social policy in Britain c. 1905-1939, Stalinist USSR and Nazi Germany, Black Americans c. 1760-1960, dissertation.

Women's Studies courses on offer in 1990-91 are as follows:

STAGE 1

■ Women's studies core course.

STAGE 2, LEVEL 2

■ Women's studies core course, film, femininity and the female experience, society and the sexual division of labour, women into management, women's social and political movements I.

For further information on selection and on course structure, see the section on Combined Studies page 115. ■

FACULTY
OF ARTS

SCHOOL OF JOURNALISM

Acting Head of School: Mike Ward

FACULTY
OF ARTS

NEWSPAPER JOURNALISM PRE-ENTRY CERTIFICATE

Course Leader: Bernard Pratt

The one-year pre-entry course in Newspaper Journalism is a vocational course for students wishing to take up a career as professional newspaper journalists. It is run in conjunction with the National Council for the Training of Journalists, which represents all sides of the newspaper industry. The course is designed to equip students with the basic skills of journalism, together with an appreciation of the theoretical and ethical considerations which influence their work.

QUALIFICATIONS FOR ENTRY

Entrants require a minimum of two 'A' Levels. Applicants are required to sit a written test of their grammatical ability, current affairs knowledge, and general news sense. This test is a requirement of the National Council for the Training of Journalists. If successful, candidates may then be interviewed by a selection panel which includes newspaper editors.

CURRICULUM

Students produce their own professionally-printed tabloid news pages during the year, and also have the opportunity to learn page design and sub-editing.

Students also have the opportunity to spend up to four weeks with one or more newspapers, as an integral part of the course. Attachments to newspapers are normally arranged during the second half of the summer term.

The emphasis of the course is strongly practical. Students work in a 'newsroom' environment, writing stories to deadlines and experiencing many of the pressures which working journalists face in their daily work.

Course duration: September to July (36 weeks)

Qualification: Certificate of the National Council for the Training of Journalists.

POSTGRADUATE DIPLOMA IN NEWSPAPER JOURNALISM OR IN RADIO AND TELEVISION JOURNALISM

Course Leaders: Mike Ward (Radio and Television), Barbara Musson (Newspaper)

The School of Journalism offers two separate one-year postgraduate courses. These are intended principally for postgraduate students wishing to pursue a career either in newspapers or in broadcasting.

The Radio and Television course was established in 1981. Over the years it has grown in reputation with students enjoying an excellent record of finding work in the profession. The course is recognised by the Joint Advisory Council for the Training of Radio Journalists. It works closely with the broadcasting industry both locally and on a national level and there is now a special link up with the BBC in the north-west. This provides students with increased training and placement opportunities.

The Newspaper course was previously run in conjunction with the National Council for the Training of Journalists where, in 1987, it achieved the best examination results in the country. Students completing the course have also been very successful in finding work.

Previously the pre-entry course was open to both graduates and post 'A' level students. In 1987 it was agreed that the entry should be split in order to create an advanced postgraduate course. This would incorporate all the elements of the NCTJ pre-entry certificate but would also include further elements more appropriate to the needs of postgraduate students.

NEWSROOM ENVIRONMENT

Both courses provide practical training in the specific skills required by working journalists, as well as examining the theoretical and ethical considerations which influence their work.

Students operate within a working newsroom environment with the emphasis very strongly on 'learning by doing'. From an early

stage in the course the broadcast journalists produce regular news bulletins. Each student receives a professional audio tape recorder to help them in their work and they make full use of the polytechnic's radio and television studios, which are among the best in higher education in the United Kingdom. They include three radio studios equipped to full broadcast standard, a professional television studio with control room and edit suite and broadcast quality portable video recording equipment.

On the newspaper course students learn quickly to work to deadlines in a realistic working environment. Their newsroom is equipped with telephones, video facilities and word processors and they are instructed in direct input and other skills appropriate to the electronic newsrooms now being widely introduced throughout the media. They produce their own professionally printed tabloid news pages at regular intervals throughout the year and also learn about page design and sub-editing.

As well as the specific skills of broadcast and newspaper journalism, all students are taught media law, public administration, keyboard skills and Teeline shorthand.

PROFESSIONAL STAFF

The journalism lecturing staff are all professional journalists who have had extensive experience in network television news and current affairs programmes, local radio and local and national newspapers.

They include Mike Ward, former news editor at BBC Radio Lancashire, Alan Mackenzie, former writer and sub editor on the Guardian, Daily Express and the Daily Telegraph, Bernard Pratt, former Guardian reporter and sub editor on the Daily Telegraph and Geoff Harris, former local newspaper editor and manager of the Mirror Group of Newspapers and United Newspapers' Journalism Training schemes.

Barbara Musson also acts as women's tutor for the courses. She teaches shorthand and has herself completed the newspaper journalism course.

In addition, there is an extensive programme of visiting lecturers – professional journalists from radio, television and national and provincial newspapers, who play an important role in the teaching of both courses.

ENTRANCE REQUIREMENTS

Applicants must hold a degree of a British polytechnic or university, or of an equivalent overseas institution. However, exceptions may be made for mature students with relevant career backgrounds.

Lancashire Polytechnic has an equal opportunities policy, and welcomes applicants from members of ethnic minorities.

MEASURING PROGRESS

Assessment for the Radio and Television Journalism course is by continuous assessment. In the Newspaper course assessment is by formal examination as well as continuous assessment.

Both courses offer the award of Postgraduate Polytechnic Diploma.

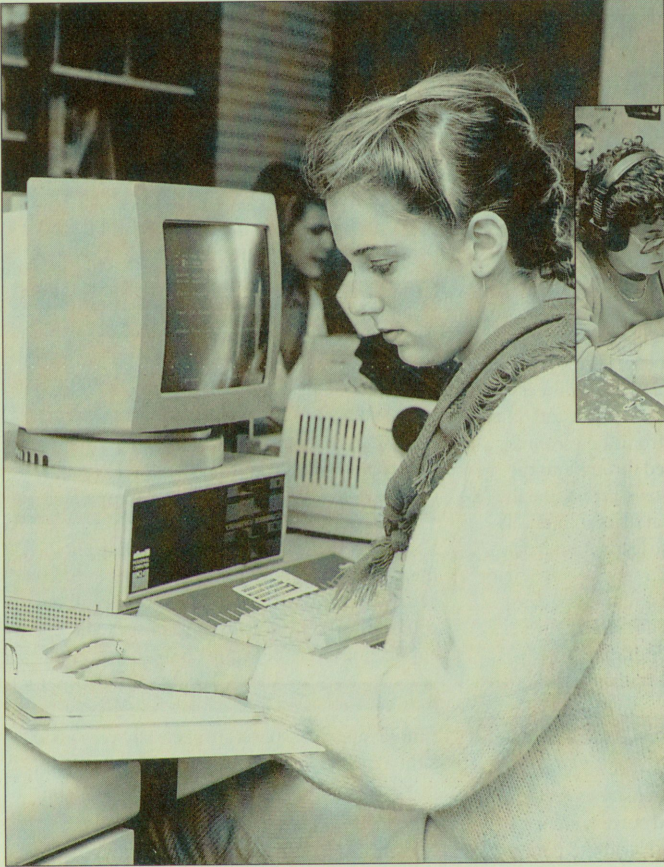
GRANTS

For grants in the UK students should apply to their local education authority. Grants for these courses of study are discretionary. Journalism course tutors will write to support students' grant applications if requested to do so.

JOB PROSPECTS

Employment prospects are generally very good although students should note that a job cannot be guaranteed on successful completion of the course. Competition for jobs, especially in broadcasting, tends to be very fierce. ■

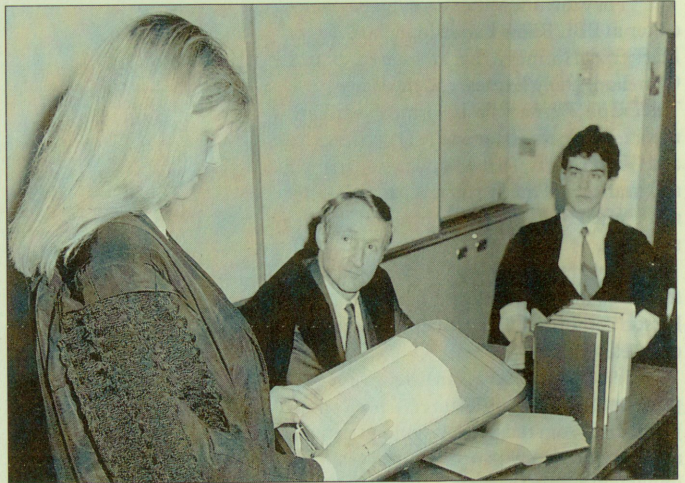
FACULTY OF
BUSINESS &
MANAGEMENT



1



2



3

1. BILINGUAL STUDENT
IN THE ELECTRONIC
OFFICE
2. LANGUAGE
LABORATORY
3. LAW MOOT

FACULTY OF BUSINESS AND MANAGEMENT

Dean of Faculty: Philip Hewitt BSc MTEch
Faculty Registrar: Anne Roberts BA

BA (HONS) ACCOUNTING

FOUNDATION COURSE IN
ACCOUNTANCY

GRADUATE CONVERSION COURSE
IN ACCOUNTANCY

BA (HONS) BUSINESS STUDIES

HIGHER NATIONAL DIPLOMA
IN BUSINESS AND FINANCE/BILINGUAL
OFFICE STUDIES

LLB (HONS)/LLB/DipHE LAW

DIPLOMA IN MANAGEMENT STUDIES
(POSTGRADUATE)

MSc/POSTGRADUATE DIPLOMA IN
BUSINESS ADMINISTRATION (IT)

BSc (HONS) BUSINESS INFORMATION
TECHNOLOGY

HIGHER NATIONAL DIPLOMA IN
BUSINESS INFORMATION
TECHNOLOGY

POLYTECHNIC DIPLOMA FOR
BILINGUAL EXECUTIVE ASSISTANTS
(POSTGRADUATE)

BA (HONS)/DipHE EUROPEAN BUSINESS
ADMINISTRATION AND LANGUAGES

BA HOSPITALITY MANAGEMENT

BA (HONS)/BA/DipHE/POLYTECHNIC
ADVANCED CERTIFICATE COMBINED
STUDIES OPTIONS: LAW, ECONOMICS,
ORGANISATION STUDIES

Courses are the responsibility of the seven schools within the faculty:

- School of Accounting and Finance
- School of Business
- School of Economics
- School of Law
- School of Management Sciences
- School of Office Communication and Languages
- School of Organisation Studies.

The Faculty of Business and Management has grown rapidly in the last few years and has become a large and expert business and management centre. The faculty seeks to provide courses of study at all levels of higher education and mature candidates without the formal qualifications are always encouraged to apply.

Close links have been developed with industry, commerce and the public authorities in Lancashire, Cumbria and other regions and visiting lecturers from these sectors are involved with the faculty's courses.

The Dean has general oversight of courses within the faculty and the Faculty Office handles the administrative arrangements for admissions to full-time and sandwich courses.

The Faculty Office is located in Adelphi Building. The School of Law and the School of Management Sciences are in Hanover Building. The School of Business, the School of Accounting and Finance and the School of Economics are in Marshall House. The School of Office Communication and Languages and the School of Organisation Studies are in Robin House. For general enquiries telephone Preston 262495; for admission enquiries telephone Preston 262412. ■

FACULTY OF
BUSINESS &
MANAGEMENT

Atractive career opportunities are available to qualified business studies and management students. In order to help you acquire such qualification the faculty offers a wide range of full-time, sandwich, block release, part-time and short courses, leading to qualifications in business studies, office communication studies, modern languages, management, the professions, accounting and business information technology.

SCHOOL OF ACCOUNTING AND FINANCE

Acting Head of School: Henry Lunt BCom MCom
FCA

BA (HONS) ACCOUNTING

Course Leader: Henry Lunt

FACULTY OF
BUSINESS &
MANAGEMENT

A three year full-time course leading to the award of BA with Honours in Accounting. The degree provides a broadly based education for students interested in accounting, who may be contemplating a career in accountancy and finance.

The course has been designed to enable students to understand the social, legal, economic and organisational environment of the accounting process, to explore the theoretical foundations of accounting and to examine current practice, problems and developments.

The course will provide for student participation in 'workshops' in accounting practice and the practical use of computers in problem-solving and data processing. Options in the final year allow students to select subjects relevant to their possible career needs.

QUALIFICATIONS FOR ENTRY

The normal minimum entry qualifications are one of the following:

- A General Certificate of Education/GCSE in five subjects including English Language and Mathematics, of which at least two should be at Advanced level.
- A General Certificate of Education/GCSE in four subjects, including English Language and Mathematics, of which at least three should be at Advanced level.
- A good standard of pass in the BTEC National Diploma or Certificate.

Qualifications deemed by the polytechnic to be of equivalent standard to those stated above may be accepted as satisfying the entry requirements. Applicants without a GCSE/'O' level pass in English Language will have to satisfy the polytechnic of their competence in written and spoken English.

Candidates who have successfully completed a Foundation Course in Accountancy, a BTEC HND Board 2 (Financial Studies) or other similar qualification may be permitted to enter the second year of the course.

Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic.

CURRICULUM

1ST YEAR

- Accounting I
- Accounting II
- Quantitative Methods I
- Organisation Studies I
- Law I
- Business Environment
- Economics

2ND YEAR

- Financial Accounting
- Management Accounting
- Financial Control and Information Technology
- Quantitative Methods II
- Organisation Studies II
- Law II
- Business and Industrial Economics

3RD YEAR

Three core subjects are compulsory:

- Advanced Financial Accounting
- Advanced Management Accounting
- Business Finance and Financial Management

Three further subjects must be selected from the following options:

- Behavioural and Social Aspects of Accounting
- International Accounting
- Public Sector Accounting
- Taxation Principles and Practice
- Auditing
- Operational Research
- Law of Corporate Finance
- Project

Assessment: Examinations are taken in each subject at the end of each year with the exception of the project option in the third year and Law II in the second year. In all three years performance is also evaluated by the completion of course work assessment. The final honours degree classification (first, upper second, lower second,

third) will be based upon performance in the second and third years.

Exemptions: The degree gives significant exemptions from the examinations of all the major professional accountancy bodies, and a reduction in the training period.

Examinations: Internal, externally assessed.

Careers: For career opportunities see the end of the Accounting and Finance section.

FOUNDATION COURSE IN ACCOUNTANCY

Course Leader: Mike English

This is a one-year full-time course aiming to provide a sound and appropriate educational base for subsequent professional accountancy studies and practical training.

The course introduces the student to the fundamental principles and concepts of accounting within the context of the economic, legal, and organisational environment in which accountancy is practised. At the end of the course the student can be expected to have developed those skills needed to embark upon a career in accountancy and finance.

In addition to the traditional teaching methods of lecture, seminar and tutorial for each subject, 'workshops' are held in which groups of students carry out practical book-keeping, accounting and computer exercises under the supervision of a tutor.

Students who complete the course successfully are exempted from the foundation examinations of the four professional accountancy bodies mentioned below.

QUALIFICATIONS FOR ENTRY

Applicants should normally be not less than eighteen years of age on 1 September of the year of entry, and hold the GCE/GCSE in at least five subjects, including both English Language and Mathematics. Two of the five subjects must be at advanced level or the equivalent in terms of A/S levels. Alternative qualifications will be considered. Full details of the requirements for membership and admission to foundation courses may be obtained from:

The Institute of Chartered Accountants in England and Wales, Gloucester House, 399 Silbury Boulevard, Milton Keynes MK9 2HL
The Chartered Institute of Public Finance and Accountancy, 3 Robert Street, London WC2N 6BH.

The Chartered Association of Certified Accountants, 29 Lincoln's Inn Fields, London WC2A 3EE.

The Chartered Institute of Management Accountants, 63 Portland Place, London W1N 4AB.

CURRICULUM

■ Accounting 1 (financial accounting), accounting 2 (management accounting and organisational control), economics, law, quantitative analysis, and computer studies.

Course duration: September to June (32 weeks)

Examinations: Internal, externally assessed.

Careers: For career opportunities see the end of the Accounting and Finance section.

GRADUATE CONVERSION COURSE IN ACCOUNTANCY

Course Leader: Geoff Woodhall

A 14 week, full-time course providing exemption for non-relevant or partially relevant graduates from the foundation examinations of the professional accountancy bodies. The course is approved by the following accountancy bodies

■ The Institute of Chartered Accountants in England and Wales

■ The Chartered Institute of Public Finance and Accountancy

■ The Chartered Association of Certified Accountants

■ The Chartered Institute of Management Accountants.

QUALIFICATIONS FOR ENTRY

■ A degree of any university of the United Kingdom or Republic of Ireland or the equivalent.

■ A degree awarded by the Council for National Academic Awards or the equivalent.

CURRICULUM

■ Accounting, economics, quantitative methods, law, data processing with computers.

Course duration: September to January (14 weeks)

Examinations: Internal, externally assessed.

CAREERS IN ACCOUNTANCY AND FINANCE

There are many careers which involve a knowledge of accounting and finance. These may be classified as follows:

Practice: Practitioners offer a variety of services to both individual members of the public and businesses of all types. Amongst the services provided are: the preparation of financial accounts and statements, auditing company accounts, advising on taxation matters, and acting as financial and management consultants.

Industry and Commerce: Accountants provide financial services aimed at promoting organisational efficiency. The work calls for creative and imaginative thinking in devising management information systems. Many accountants are directors of major British and international companies.

Public Services: There are careers in local government, the district audit service, the health service, public corporations, nationalised industries, educational institutions and many other non-profit seeking bodies.

Education: Accounting and finance is taught in universities, polytechnics and colleges of further education.

Overseas: The EEC and other overseas countries provide expanding opportunities for financial and accounting specialists.

Many careers do not depend upon a person obtaining a professional accountancy qualification, though for some this is a necessary requirement. Generally, a knowledge of accounting and finance is desirable for anyone wishing to pursue a career in industry, commerce, business or public service since all forms of organisations require a finance and accounting system. ■

SCHOOL OF BUSINESS

Head of School: Professor Graham Kelly

MA PhD DipM MBIM

BA (HONS) BUSINESS STUDIES

Course Leader: Dr Eric Neill

A four year sandwich course validated by the CNAA leading to the award of BA with Honours in Business Studies. The course is divided into two parts – Part I over six terms and Part II over three terms – the two parts are separated by an industrial training period of one year.

Part I provides a broad education in major disciplines relevant to an understanding of and a career in commercial and industrial enterprises. In Part II students may specialise in one of four areas: marketing studies, manpower studies, finance studies, or decision studies or may continue their education on a broader front considering some aspects of all four of these.

Work-based students will be those already employed or those recruited for secondment to the course. In such cases the employer will provide the period of practical training. Polytechnic-based students will be those joining the course on their own initiative. Help will be given to them in finding suitable practical training, and this may be undertaken with more than one organisation to widen the students' experience.

QUALIFICATIONS FOR ENTRY

The normal minimum entry qualifications are one of the following:

- A General Certificate of Education/GCSE in five subjects, including English Language and Mathematics, of which at least two should be at Advanced level.
- A General Certificate of Education/GCSE in four subjects, including English Language and Mathematics, of which at least three should be at Advanced level.
- A good standard of pass in the BTEC National Diploma or Certificate.

Qualifications deemed by the polytechnic to be of equivalent standard to those stated above may be accepted as satisfying the entry requirements. Applicants without an Ordinary level pass in English Language will have to satisfy the polytechnic of their competence in written and spoken English.

Candidates who have successfully completed a Foundation Course in Accountancy, HND in Business Studies or other similar qualification may be permitted to enter the second year of the course.

Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic.

CURRICULUM

STAGE I (3 TERMS)

1ST YEAR (Level One Units)

■ All students take: business programme I, accounting, organisation studies, law, business information systems I, business decision modelling.

■ In addition, students may take languages (French, German, Spanish or Italian).

STAGE II (6 TERMS)

2ND YEAR (Level Two Units)

■ All students take: business programme II, marketing management, human resources and organisations.

■ In addition, students must take two units from financial management, law of business organisations, business information systems II, quantitative methods, business economics and the macroeconomic environment, languages (French, German, Spanish or Italian).

Students must also attend weekly placement preparation workshops.

3RD YEAR

■ Industrial training period (48 weeks)

4TH YEAR (Level Three Units)

■ All students take: business programme III.

■ In addition, students must take four units from economics of industries and firms, financial economics, international business, human resources, markets and planning, law of corporate finance and taxation, business finance and financial management, financial and

management control, theory and practice of taxation, business information systems III, operational research, business statistics, marketing distribution, buyer behaviour, marketing research and information systems, promotional communications, industrial relations, manpower strategy and organisation effectiveness, contemporary issues in human resource management, project, languages (French, German, Spanish or Italian).

Note: The provision of options is subject to a satisfactory minimum number enrolling. Level Three options may have Level Two prerequisites. Business programme units are double weighted.

Throughout, the course consists of a combination of lectures, seminars, tutorials, practical exercises and case studies. The development of business skills is an important element of the course.

Assessment: Throughout the course, assessment will be based upon a combination of course work and examinations, formal examinations being held at the end of years 1, 2 and 4.

Careers: For career opportunities see page 66.

DIPLOMA IN MANAGEMENT STUDIES

Course Leader: Roger Armstrong

The Diploma in Management Studies is a postgraduate/post-experience qualification awarded by the Council for National Academic Awards (CNAA). The diploma course seeks to provide students with a basic knowledge of the background to industry to raise their general level of understanding of management processes and to acquaint them with the tools and techniques of management. It is designed to suit the needs of suitably qualified men and women who already have, or aspire to, management responsibilities, and also those who are changing careers or returning to employment.

The course comprises two stages of full-time study over a period of eight months, commencing in late September and ending early in the following June. The first stage is broadly

based and enables students of differing ages and experience to acquire a uniform background of knowledge before proceeding to the second (final) stage. Entry to the second stage is conditional upon satisfactory performance in stage one and assessment is based on both course work and written examinations.

CURRICULUM

STAGE I (12 WEEKS)

■ Nature of management, people and organisations, management information analysis, management theory.

STAGE II (18 WEEKS)

■ Nature of management (including business analysis, management skills development); people and organisations (including industrial relations, behaviour in organisations, human resource management); management information analysis (including management science, management systems, financial management); management theory (including operations management, strategic management, marketing).

■ Each student will be required to carry out a project in one of the subject areas covered by the course. The project will normally be industry-based, but, in appropriate cases, may be library-based.

■ The Diploma in Management Studies will be awarded only to those students who achieve a satisfactory level of performance in written examinations (externally assessed), in their project dissertation and in course work.

QUALIFICATIONS FOR ENTRY

For entry to Stage I of the DMS a student must hold either:

■ A degree of a British university or the CNAA, or

■ A BTEC Higher National Diploma or Higher National Certificate, or

■ An appropriate grade of membership of a professional body approved by the CNAA for this purpose, or

■ Another acceptable qualification of equivalent standard.

Normally students should have a minimum of 2 years suitable professional or administrative experience.

Students should preferably be at least 23

years of age before commencing Stage I. Students of 27 years or over with less than the above qualifications, but with at least four years' experience of suitable professional or administrative responsibility, may be admitted providing they can demonstrate that they are capable of profiting from and contributing to the course. Students who have obtained certain qualifications may be exempted from Stage I.

Successful students may display the letters DMS after their names and with approved managerial experience are also eligible for corporate membership of the British Institute of Management.

POLYTECHNIC CERTIFICATE IN MANAGEMENT STUDIES

Course Leader: Roger Armstrong

The Stage I of the Diploma in Management Studies is offered in its own right and successful students will be awarded a polytechnic certificate. The same entry requirements as the DMS Stage I apply but students aged less than 23 will be considered.

Stage II of the DMS may be completed at a future date. ■

SCHOOL OF ECONOMICS

Head of School: Mike Hardy BSc MA (Econ) PGCE

BA (HONS)/BA/DipHE/ POLYTECHNIC ADVANCED CERTIFICATE COMBINED STUDIES INCLUDING ECONOMICS

Subject Leader: John Coates

Economics is offered as part of the BA (Hons)/DipHE Combined Studies programme. In year 1 equal weight is given to each of three subjects. In subsequent years Economics can be studied together with one other subject on a major/minor or a joint (50:50) basis. The modules currently offered within Economics are:

CURRICULUM

1ST YEAR

■ Economics 1, quantitative analysis for economics 1, information technology for economics.

2ND YEAR

■ Micro economics, macro economics, economic systems, development of the UK economy in the 20th century, quantitative analysis for economics II.

3RD YEAR

■ Economic policy, development and underdevelopment, political economy of welfare, issues in economic theory, regional and urban economics, dissertation.

Further details of the Combined Studies programme can be found on page 115. ■

SCHOOL OF LAW

Head of School: Christopher J Carr MA BCL

LLB (HONS)/LLB/DipHE LAW

Course Leader: Peter Kay

A three year full-time degree course validated by the Council for National Academic Awards leading to the award of Bachelor of Laws or Bachelor of Laws with Honours. Students who choose to terminate their course after successfully completing year two may be awarded the DipHE in Law.

The degree is designed to provide a stimulating and interesting undergraduate study of law which, while providing students with a legal education fully comparable in content and style to that of other degrees, possesses a number of distinctive features of its own.

Students are introduced to the legal process not only by lectures and seminars but by visits to courts, mooting and lectures by outside specialists on such matters as the administration of the courts, tribunals, the prison and probation services.

Over the final two years of the course a wide range of optional subjects ensure flexibility and the opportunity for students to develop their particular interests. These provide an academic introduction to the study of subjects associated with professional practice as well as the opportunity for studying a wider range of legal subjects. Students are also given the opportunity to participate in the Preston Free Legal Information Service (PFLIS) and thus encounter real life legal problems.

Arrangements are also made for students to gain experience on placements in solicitors' offices and other practical legal environments.

An opportunity is also provided for the study of the social and interdisciplinary aspects of the law in such matters as criminology and policy making in Britain, while students with a particular taste for field work and research may opt to do a supervised project in the third year. Additionally, subject to student demand, options are available in the study of the French and German languages.

FACULTY OF
BUSINESS &
MANAGEMENT

QUALIFICATIONS FOR ENTRY

The normal minimum entry qualifications are one of the following:

- A General Certificate of Education/GCSE with passes in five subjects, including two subjects at Advanced level and a GCSE/'O' level pass in English Language.
- A General Certificate of Education/GCSE with passes in four subjects, including three subjects at Advanced level and a GCSE/'O' level pass in English Language.
- A good standard of pass in the BTEC National Diploma or Certificate.

Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic.

CURRICULUM

1ST YEAR

- Constitutional law, law of contract, law of torts, English legal process. Legal methods is also studied in the first term and a Foundation Course is available for those students taking the language option.

2ND YEAR

- Criminal law, land law and two from equity, consumer law, labour law, administrative law, family law, public international law, criminology I, language I, policy making in Britain. In addition all students take a half course in information technology and law which is designed to provide a practical introduction to the uses of information technology for lawyers. The half course does not involve programming and is assessed purely by coursework.

3RD YEAR

- A choice of five from consumer law, labour law, administrative law, family law, public international law, company law, conflict of laws, law of the EEC, law of evidence, intellectual property, jurisprudence, public control of land, revenue law, welfare law, equity, criminology I, criminology II, policy making in Britain, a project and language II.

Assessment: Examinations are held at the end of each year, and are internally set and externally assessed. In addition all students are required to present one piece of assessed work in each of their subjects in each year of the course.

Professional exemption: The degree qualifies for exemption from Part I of the professional examinations of the Law Society (solicitors) and the Council of Legal Education (barristers) subject to the regulations as laid down from time to time by those bodies.

CAREER PROSPECTS

The degree provides not only a natural route towards careers in the legal professions themselves but also constitutes an extremely useful qualification for a diverse range of careers in other professions, industry, commerce, banking and finance, local government, the civil service and the public services. A good number of graduates have also gone on to academic careers in universities, polytechnics and colleges. ■

SCHOOL OF MANAGEMENT SCIENCES

Head of School: David Bagley BA MSc

BSc (HONS) BUSINESS INFORMATION TECHNOLOGY

Course Leader: George Rawlings

A four year sandwich course validated by the CNA A leading to the award of BSc with Honours in Business Information Technology. The course is divided into two parts – Part I over six terms and Part II over three terms – which are separated by an industrial training period of one year.

This innovative course is designed for applicants with no previous knowledge of business or information technology. The course is essentially a business course that seeks to combine traditional business subjects with the study of information systems and computing related disciplines, the focus being on employing where appropriate the relevant information technologies as the “enabling mechanism” for the solution of business problems.

ENTRY REQUIREMENTS

The normal minimum entry qualifications are one of the following:

- A General Certificate of Education/GCSE in five subjects including Mathematics and English Language of which at least two should be at Advanced Level (CSE grade 1 will be accepted in lieu of GCSE/O’ level), or
- A good standard of pass in the BTEC National Diploma or Certificate, or
- Qualifications deemed by the polytechnic to be of equivalent standard to those stated above.

Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic. The school particularly welcomes mature applicants wishing to enter higher education and extends a general invitation to them to come and discuss their needs and aspirations.

Students may enter the course as either a work-based student or a polytechnic-based

student. Work-based students will be those already in employment or those recruited for secondment to the course. In such cases the employer will provide the industrial placement. Polytechnic-based students will be those joining the course without sponsorship from an employer. Help will be given them in finding a suitable placement opportunity.

CURRICULUM

PART I

1ST YEAR

■ Analysis of business activity, business functions and organisations, communications, introduction to information technology for business, production engineering, software design.

2ND YEAR

■ Business information systems evaluation, computer aided manufacturing systems, distributed information systems, management of systems development, management of resources, user environments.

3RD YEAR

■ Industrial training.

PART II

4TH YEAR

Business information systems design, corporate strategy and planning, information systems management, intelligent knowledge-based systems, management science, market modelling and forecasting.

Assessment: Throughout the course, assessment will be based upon a combination of coursework and examinations held at the end of years 1, 2 and 4.

OPPORTUNITIES

Graduates from this course will be able to enter a wide range of careers in business, local and central government and education, with further opportunities opening as the IT revolution evolves.

FACULTY OF
BUSINESS &
MANAGEMENT

HIGHER NATIONAL DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY

Course Leader: Dr John Wilson

A two-year full time course leading to the award of Higher National Diploma in Business Information Technology validated by the Business and Technician Education Council.

The course provides a useful blend of education and training in the fields of business studies and computer-based information systems used in commerce and industry. Students completing this course will be well-equipped to continue their careers in a wide range of areas involving the applications of new and emerging technologies to business control and decision making.

ENTRY REQUIREMENTS

The normal minimum entry qualifications are one of the following:

- A BTEC National level award, or
- An Ordinary National Diploma or Certificate under pre-BTEC regulations, or
- A General Certificate of Education/GCSE in four subjects including English Language of which at least one should be at Advanced level (CSE grade 1 will be accepted in lieu of GCSE/'O' level), or
- Qualifications deemed by the polytechnic to be of equivalent standard to those stated above.

Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic. The school particularly welcomes mature applicants wishing to return to higher education and extends a general invitation to them to come and discuss their needs and aspirations.

This course is designed for applicants with no previous knowledge of computing or business studies. It therefore offers an excellent opportunity for such applicants to obtain a much sought after qualification in modern technology.

CURRICULUM

1ST YEAR

- After a short introductory programme designed to integrate new students and bring them to a common level in elementary skills, the

remainder of the first year is devoted to modules in business analysis, business systems, information hardware, software design, communications in business, and cross-modular studies which is designed to bring together the other modules into an integrated whole.

2ND YEAR

- Modules on business analysis and business systems follow on from those in the first year, and are supplemented by modules on technology applications, and applications workshops which enable students to gain experience in group project work.

- Throughout the course emphasis is placed on student-centred learning and group work is an important adjunct to individual work.

Assessment: Throughout the course, assessment will be based upon a combination of course work and examinations.

MSc/POSTGRADUATE DIPLOMA IN BUSINESS ADMINISTRATION (INFORMATION TECHNOLOGY)

Acting Course Leader: Reg Atkins

A conversion course validated by the CNAA leading to the award of an MSc or Postgraduate Diploma in Business Administration (Information Technology).

This course is divided into two parts: Part I commences in January and lasts for two academic terms. Part I is the Postgraduate Diploma course. Students progressing to the MSc will be required to undertake a 12 week industrial project followed by Part II of the course based at the polytechnic.

This course is designed as a conversion course and assumes no prior knowledge of information technology. It is expected that applicants will have at least one year's experience of business. The course focus is on using information technology as the mechanism for solving business problems, and in the strategic use of IT within business.

ENTRY REQUIREMENTS

MSc

- A first degree of a British University or CNAA or its equivalent, or

- A combination of qualifications and experience indicative of an honours degree.
- POSTGRADUATE DIPLOMA**
- A first degree of a British University or CNAAC or its equivalent, or
 - A Higher National Diploma passed at a good standard, or
 - A combination of qualifications and experience indicative of at least HND standard.

Students registering for the Postgraduate Diploma may at the discretion of the Board of Examiners proceed to the MSc.

CURRICULUM

POSTGRADUATE DIPLOMA PART I (2 TERMS)

- Business analysis, information management systems decision modelling.

MSc

- Industrial Project (12 weeks)

PART II

- Strategic management of IT, two optional subjects, dissertation.

Assessment: Throughout the course, assessment will be based on coursework and examinations held at the end of Part I and Part II.

OPPORTUNITIES

Graduates for this course will be able to offer expertise in the use of IT in business, both at the problem solving level and its strategic use. The range of employment opportunities are wide and include business, financial institutions and government. ■

SCHOOL OF OFFICE COMMUNICATION AND LANGUAGES

*Head of School: Angela Murphy MIL FSBE FABAC
MInstAM*

DIPLOMA FOR BILINGUAL EXECUTIVE ASSISTANTS (POSTGRADUATE COURSE)

FACULTY OF
BUSINESS &
MANAGEMENT

Course Leader: Helen Harding

This is a one year, full-time intensive course providing a vocationally oriented programme of languages for business with skills and knowledge required by those wishing to occupy positions as executive or personal assistants or bilingual secretaries either in this country or abroad.

QUALIFICATIONS FOR ENTRY

Normally a degree in any discipline together with a sound working knowledge of French to 'A' level standard or equivalent. Consideration will also be given to non-degree applicants who possess qualifications and/or experience which will enable them to benefit from the course.

CURRICULUM

Language Studies: Two languages are studied. French is compulsory and study will commence at a level commensurate with the experience and/or qualifications of the individual student. As the second language, students may elect to follow German or Spanish from intermediate or advanced level, dependent upon previous study. Alternatively, students entering the course with French only may normally study Spanish or Italian from ab initio level. (It should be noted that the range and levels of the second language options will be dependent upon group viability. However, every effort is made to accommodate individual preferences.)

Office Communication Studies: An integrated programme of office technology, secretarial procedures, management appreciation, office organisation/administration, European business

practice, notetaking (Teeline system), typewriting, audio transcription training, word processing and business communication.

Work Placement: A two-week work placement prior to the Easter vacation with an organisation in the north-west region forms an integral part of the course.

Examination/assessment: All components of the course are examined on a continuous, on-course assessment basis, together with final examinations in the four areas studied.

Assessments and examinations are internally set with external moderation. Successful students are eligible for the award of a polytechnic diploma.

Course duration: Late September - July (34 weeks)

BA (HONS)/DIPHE EUROPEAN BUSINESS ADMINISTRATION AND LANGUAGES

Course Leader: to be appointed

Year One Tutor: Marilyn Thorpe

Year Two Tutor: Kath Bassett

Year Three Tutor: Michael Bilkau

A three-year full-time programme of study, providing a balance of European business languages, European business communications and European business studies which is designed particularly for those who will seek posts as business linguists, European business administrators or other challenging posts in the public or private sectors where a combination of European business skills and modern languages is a pre-requisite for entry.

The second year of the course includes an extensive European study period attached to an educational institution in France, Germany or Spain. During this period spent abroad students will also have the opportunity of first-hand business experience acquired by commercial attachment to a European company.

CURRICULUM

1ST YEAR

■ European Business Languages: The Business Language programme has been designed to

equip students with the necessary skills, knowledge and attitudes to operate as a business linguist in a multi-national environment.

European Business Communications: The business communications programme will examine administrative, technological and communications systems in European business. Also included is the development of keyboard and word processing techniques and an introduction to business software packages. (Shorthand is offered as an option).

European Business Organisation: This component explores the environment in which a European business organisation operates. Students will, therefore, examine the legal, social, economic and functional aspects of business in a European/international context.

2ND YEAR

■ A European study period occupies the first five months of the second year where students are attached to an educational institution in France, Germany or Spain. An integral part of this placement will be a commercial attachment to a European company. On return to the UK, every attempt will be made to capitalise on the experience gained abroad and the students will embark on an in-depth study of European business languages, European business communications and European business organisations.

Students who wish to terminate their studies after two years, and who have successfully completed the first two years of the programme, are awarded the Diploma in Higher Education in European Business Administration and Languages.

3RD YEAR

■ The third year has a central core and a choice of options, reflecting the students' interests and strengths:

Core

- Main European Language
- Office Systems Analysis
- Corporate Strategy and Planning Project

Options

- International Marketing
- Subsidiary European Language
- Law of International Commerce
- Human Resource Management

QUALIFICATIONS FOR ENTRY

Entry to the programme of study is normally subject to the following conditions:

- A minimum of 2 GCE 'A' levels (or equivalent) one of which must be in French, German or Spanish, and
- A minimum of 5 GCSE/'O' level passes (or equivalent) including English and Mathematics.

Previous linguistic experience is acceptable in lieu of formal qualifications. Candidates are considered on individual merit, and in some cases, a substantial period spent abroad may be equated with formal qualifications.

CAREER PROSPECTS

Opportunities for diplomates and graduates of this course are extremely promising, previous students having been highly successful in securing stimulating and well-rewarded bilingual positions locally, nationally and overseas.

BTEC HIGHER NATIONAL AWARDS

Course Tutor: Willi Hackl

Modern foreign language study is offered as an option in the two year full-time course leading to the BTEC Higher National Diploma in Business and Finance. French, German and Spanish are offered and students select one or two of these for study. Applicants must possess a GCE 'A' level certificate in at least one of the chosen subjects. (For further details see page 64). ■

SCHOOL OF ORGANISATION STUDIES

Head of School: Martin Gibson BSc MSc DML AIPM

BA HOSPITALITY MANAGEMENT

Course Leader: Diane Davis

This four-year sandwich degree, offered jointly by Lancashire Polytechnic and Blackpool and The Fylde College, provides a management education for students wanting to pursue careers in the various branches of the hospitality industry.

Core subjects and a range of options ensure adequate preparation for those wishing to be involved in the management of hotels, restaurants, leisure and outdoor pursuit centres, tourist complexes, licensed houses, theme parks, catering institutions, and corporate hospitality operations.

The expanding hospitality industry with its challenging opportunities, has a rising shortage of qualified managers, and is actively supporting this course via involvement throughout its four years.

PROGRAMME OF STUDY

The course includes a balance of lectures, seminars, tutorials and practical workshops using modern facilities at both institutions. Throughout the course students will study at Lancashire Polytechnic and Blackpool and The Fylde College which is situated in Europe's largest holiday resort. As the programme progresses the emphasis on time spent at the two sites switches from a first year which is based largely at Blackpool to a final year conducted almost totally at Lancashire Polytechnic.

CURRICULUM

1ST YEAR

■ Analysis of business activity, hospitality studies, and people and hospitality operations. Additionally students will undertake two separate two week periods of industrial experience during the first term.

FACULTY OF
BUSINESS &
MANAGEMENT

2ND YEAR

■ Business operations, hospitality management, human resource management, and industry-based workshops consisting of joint consultancy projects with final year students. Additionally students choose one option from: *Foreign language, gastronomy, leisure and recreation.

*Foreign language provision exists for a number of European languages at a variety of entry points. However, all groups operate subject to there being sufficient demand.

3RD YEAR

■ Supervised industrial work experience either in the UK or abroad, usually in an area of the hospitality industry which the student has identified as his or her chosen career field.

4TH YEAR

■ Hospitality business policy and planning, hospitality industry consultancies, and a substantial project. To allow for increasing specialisation students additionally choose two options from: Licensed house management, marketing and the media, tourism, volume production systems or from the range of options available under the Polytechnic's Credit Accumulation Scheme.

Assessment and Examination: The course leads to the award of a BA in Hospitality Management which is subject to satisfactory performance in end of year examinations and the completion of all coursework assignments which form part of the formal assessment.

Exemptions: On enrolment students are eligible for Student Membership of the Hotel, Catering and Institutional Management Association, which grants exemptions up to the Licentiateship stage on successful completion of the degree. Full membership is available after an industry-based project undertaken whilst in employment after degree completion.

QUALIFICATIONS FOR ENTRY

- Normally two GCE 'A' level passes, or
- BTEC National Diploma or Certificate with appropriate grades, or
- Equivalent qualifications. Mathematics at GCSE/'O' level is required.
- Candidates with non-standard entry qualifications are welcome to apply and mature

students are encouraged and guaranteed an interview.

Holders of an appropriate Higher National Diploma may be admitted directly to the second year of the course and may also be exempted from part or the whole of the one year industrial placement.

Applicants who initially do not possess the appropriate qualifications for entry to the degree programme will normally be considered for a place on the Higher National Diploma in Hospitality offered directly through Blackpool and The Fylde College. Students who complete the HND may become eligible for consideration for transfer to the degree programme.

CAREER PROSPECTS

The hospitality industry currently employs over 2.4 million people in the UK alone and the need for graduate status managers is increasing. Healthy links with major employers guarantees not only a worthwhile vocational curriculum, but the most comprehensive and up-to-date careers advice possible.

HIGHER NATIONAL DIPLOMA AWARDS

The Higher National Diploma is validated by the Business and Technician Education Council and it is awarded on the basis of two years full-time study.

BOARDS OF STUDY IN BTEC COURSES

The School of Organisation Studies offers courses under BTEC's Business and Finance Board (B2). Studies are geared to:

- **General management.** This allows students to defer choice of specialist streams (personnel, finance or marketing) until the second year.
- **Bilingual office studies and languages.** Students who wish to undertake any of these should choose the appropriate stream at the beginning of the course. This then allows them to study specialist units during the course.

ADMISSION REQUIREMENTS

- A BTEC National level award in Business Studies or Public Administration, or

- An Ordinary National Certificate or Diploma in Business Studies, or Public Administration, or
- A General Certificate of Education/GCSE in four subjects, including mathematics and English Language, and at least one at 'A' level, the GCSE's/'O' levels being passes at grades A, B or C (or CSE equivalent), or
- Mature students with substantial work experience, may be admitted at the discretion of the polytechnic, or
- A qualification accepted by BTEC as equivalent to one of the above.

HND students normally must be at least 18 years of age, have completed English compulsory secondary school education, or its equivalent, and be competent in the English language, usually evidenced by GCSE/'O' level, or other school leaving certificate.

It should be stressed that these are minimum standards. Offers made normally require qualifications above that level. However, applicants without the above qualifications, particularly mature applicants, will be considered on an individual basis, and may be admitted at the discretion of the polytechnic and BTEC.

It is a minimum requirement of admission to the bilingual office studies stream that one 'A' level be offered in a modern foreign language from French, German and Spanish. The second language may be offered at GCSE/'O' level or studied *ab initio*. Students studying a single foreign language choose from a list of optional units instead of the second language.

HIGHER NATIONAL DIPLOMA IN BUSINESS AND FINANCE

Course Leader: Mac McCarthy

CURRICULUM

1ST YEAR

- All students take the three common core units: business organisations and functions, organisations in a changing environment and business information systems 1. Bilingual office studies students, in addition to the core units, take office communications systems, foreign language 1 and either Britain and the European community or foreign language 2.

All students select 3 further options units

from: supervisory studies, office administration systems (except bilingual office studies students), Britain and the European community, business law, government and the economy, foreign languages (French, Spanish or German), office communication systems (available to bilingual office studies students only).

2ND YEAR

- All students take three common core units: management of work organisations, environment and business initiatives and business information systems 2.

■ All students then select options; streams are thereby formed for the purpose of satisfying the requirements of various careers or a professional qualifying body.

Stream Options

Finance: Any five units from: company financial accounting, costing, quantitative analysis, auditing, company and commercial law, business systems analysis.

Personnel: Personnel administration, industrial relations, management skills development.

Marketing: Marketing management, promotional communications, buyer behaviour, marketing research and information systems.

Bilingual Office Studies: Office communication management, or office systems management plus foreign language 1 and any 3 units from: foreign language 2, international marketing, business translation and interpreting, European business organisation.

Languages: Foreign language 1 plus a choice from the following: foreign language 2, business translation and interpreting, European business organisation, international marketing, management skills development, buyer behaviour, promotional communications. French, German and Spanish are normally available in each year of the course, but this is subject to viability.

Exemptions: Completion of appropriate units can give substantial exemptions from the examinations of a number of professional bodies.

Tuition methods: Most students will be taught by a weekly lecture, followed by small group seminars for discussion and problem-solving. In

addition, staff are available for personal tutorial sessions with individual students.

During the course students will complete a variety of practical exercises and assignments relating the unit material to real-life circumstances.

The academic year is about 31 weeks in duration.

Assessment: The performance of each student on the course will be assessed in three ways:

- By continuous assessment within each unit, through completion of a number of assignments during the year;
- By the production of satisfactory evidence of the development of relevant business skills;
- By achieving at least a pass grade in end of year time-constrained examined assignments.

These examinations are set internally by the polytechnic and moderated externally by a BTEC moderator to ensure comparability from one year to the next and between colleges offering the same level of course.

The examination regulations for the course are intended to permit wide flexibility in the assessment of each student, so that overall performance is not determined solely by the ability to pass examinations. Any practical experience is helpful in assignments and recognition will be given for it in assessment procedures.

PROGRESS AFTER HIGHER NATIONAL DIPLOMA

Each year a number of students who have achieved the BTECHND with distinction or above average grades go on to postgraduate courses at universities and polytechnics. A number also transfer to the BA(Hons) Business Studies course – normally into year 2 of that course and to the polytechnic's Combined Studies degree programme.

CAREERS IN BUSINESS

Careers in business include general business administration or the specialist fields of finance, accountancy, marketing, banking, company secretaryship, exporting, insurance, local government, industrial relations and similar interests. Posts are available in both private and public sectors.

Possession of an honours degree or an HND offers a route to professional status in a number of areas. A student who has obtained an honours degree or diploma in Business Studies will be able to apply for exemptions on a subject for subject basis from the examination of the major professional associations concerned with accountancy, banking, insurance, marketing, transport, company secretaryship, work management and personnel management. ■

FACULTY OF SCIENCE

Dean of Faculty: Professor Kenneth Goulding

BSc PhD CBIol FIBiol

Faculty Registrar: Paul Clark BSc MA

MPhil/PhD BY RESEARCH

MSc/POSTGRADUATE DIPLOMA IN BIOTECHNOLOGY

† BSc (HONS) APPLIED BIOLOGY (BIOCHEMISTRY)

† BSc (HONS) APPLIED BIOLOGY (BIOMEDICAL SCIENCES)

* BSc (HONS) HORTICULTURAL TECHNOLOGY AND MANAGEMENT

HIGHER NATIONAL DIPLOMA IN SCIENCE (APPLIED BIOLOGY)

MSc ANALYTICAL CHEMISTRY

† BSc (HONS)/BSc CHEMISTRY

GRADUATE MEMBERSHIP OF THE ROYAL SOCIETY OF CHEMISTRY PART I

HIGHER NATIONAL DIPLOMA IN SCIENCE (CHEMISTRY)

†* BSc (HONS)/BSc APPLIED STATISTICS

GRADUATE DIPLOMA IN STATISTICS

HIGHER NATIONAL DIPLOMA IN MATHEMATICS STATISTICS AND COMPUTING

† BSc (HONS) ASTROPHYSICS

HIGHER NATIONAL DIPLOMA IN SCIENCE (APPLIED PHYSICS)

BSc (HONS) PSYCHOLOGY

† BSc (HONS) NEUROSCIENCE

† BSc (HONS) COGNITIVE SCIENCE

BSc (HONS)/BSc/DipHE/POLYTECHNIC
ADVANCED CERTIFICATE COMBINED
STUDIES OPTIONS: ASTRONOMY,
APPLIED PHYSICS, BIOCHEMISTRY,
CHEMISTRY, GEOGRAPHY,

* MATHEMATICS, MATHEMATICAL
SCIENCES, MICROBIOLOGY,
PHYSIOLOGY, PSYCHOLOGY,

* STATISTICS

The Academic Board has endorsed the concept of the polytechnic as a comprehensive institute of higher education offering courses with day release, block release, sandwich, full-time and other varieties of attendance patterns. It is the aim of the polytechnic that, in order to maximise student opportunity, a wide range of courses shall be offered. In accordance with this aim the Faculty of Science offers graduate, professional and technician courses in science subjects with opportunities for course transfer as the academic ability and aspiration of a student changes. The opportunity to transfer between the various HND programmes which the faculty offers and the named degree programmes offered through the Combined Studies Programme (further details of which are given on page 115) is worthy of special mention.

All courses operated by the faculty enjoy good relations with students, who are actively involved with staff in course development and review. Particular emphasis is placed on the use of a wide variety of teaching and learning strategies and, in all the faculty's courses, continuous assessment of course work is an important part of the overall assessment of student performance. Good relationships are also maintained with industry to ensure our courses are relevant and up-to-date. This is also achieved through the faculty's strong commitment to research which underpins both course and staff development. More than one research team in each of the faculty's five schools (Applied Biology; Chemistry; Mathematics and Statistics; Physics and Astronomy; and Psychology) enjoy international reputations. Moreover, through research links opportunities are opening up for students to study for part of their programmes overseas, particularly in Europe. ■

† Named degrees (defined fields) deriving from the Combined Studies Programme, further details of which, in addition to the entries in the following pages, are given under Combined Studies (page 115)

* Subject to approval

FACULTY
OF SCIENCE

SCHOOL OF APPLIED BIOLOGY

Head of School: Dr Ray Cotton BSc PhD

MASTER OF PHILOSOPHY (MPhil) OR DOCTOR OF PHILOSOPHY (PhD) BY RESEARCH

Enquiries to: Professor Glyn Morton

FACULTY
OF SCIENCE

QUALIFICATIONS FOR ENTRY

Entrants will normally have a first or second class honours degree of a British University or the CNAA with biological science or chemistry as a main subject, or the Membership of the Institute of Biology, or an equivalent qualification. Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic. For mature students, lack of formal entry requirements may be compensated for by appropriate work experience.

QUALIFICATION

Students register with the CNAA and the higher degree is awarded on submission of a satisfactory thesis and successful completion of a vivavoce examination.

AREAS OF RESEARCH

Cytotaxonomy of grasses, energy transfer and adaptations in photosynthesis, molecular biology of cyanobacteria, molecular genetics and evolution of bacterial plasmids, applications of immobilized cells and enzymes, extracellular metabolites of cyanobacteria, genetic manipulation of bacteria, flowering and photoperiodism, phytochrome, circadian rhythms, biodeterioration of wood, building materials, hydrocarbons and plastics, biofilms, effects of diet and exercise on energy metabolism in mammals, polymorphisms in invertebrates, stimulus-secretion coupling in exocrine glands, role of serum in controlling myocardial contractility, calcium regulation in muscle, treatment of intestinal disease. Supervision is also provided for candidates wishing to register

their own topics which will usually be work related.

MSc/POSTGRADUATE DIPLOMA IN BIOTECHNOLOGY

Course Leader: Dr Hilary Evans

Developments in biotechnology are having a major impact on industry. Many biology graduates, although acquainted with the underlying principles of biology during their initial courses, are less aware of the applications of their course material in industrial situations, or of the technological and marketing limitations imposed on potential commercial processes.

The course is designed to develop aspects of biological knowledge of students with a biological background and to acquaint them with the principles of engineering, business methods and law as applied to the study of biotechnology.

The course is a postgraduate course and will therefore contain a reflexive element appropriate to its level.

QUALIFICATIONS FOR ENTRY

Candidates for admission to the course will normally have at least a lower second class degree in a biological subject. However students with degrees incorporating a substantial content in biology with additional scientific studies, eg BSc Combined Studies in Biochemistry and Chemistry, would be acceptable. Candidates without these formal qualifications but with extensive appropriate experience will also be considered. All applicants will be interviewed.

Note: At the time of preparation of this prospectus the Training Agency sponsors most places on the course and candidates considered suitable for entry receive financial support from the Training Agency.

Course duration: One-year full-time January-December (50 weeks).

CURRICULUM

The total class contact hours will average 20h/week. In addition, students will be expected to spend an average 20h/week on private study. This will vary throughout the course with a

**BSC (HONS) APPLIED BIOLOGY
(BIOCHEMISTRY)**

Course Leader: Dr Jack Waring

slightly larger proportion of teaching in the earlier part of the course and a greater proportion of private study and project time after the industrial placement. Teaching will be concentrated into three and a half days per week, the remaining one and a half days being available for private study, seminars and teaching of the management and law themes. During the early part of the course, bridging courses will be taught for one or two hours instead of seminars.

Industrial placement: The student will be placed in an appropriate industrial laboratory for a twelve week industrial placement. A major project is carried out in the industrial period.

Subjects covered in the course include:

- Advanced and applied biology – methods and techniques, protein engineering, molecular genetics and gene manipulation, plant biochemistry, plant cell and tissue culture, animal tissue culture, microbial fermentation, immobilization of cells and enzymes, microbial biodeterioration, pharmacology and toxicology.
- Process engineering.
- Business analysis and industrial law – including patent law.
- Computing, statistics and mathematical methods.

Assessment: At the end of the industrial period assessment for the award of postgraduate diploma will be made based on formal examinations, course work assessment and satisfactory completion of the training period. Successful candidates will then proceed to complete the Masters project which is assessed by satisfactory completion of a thesis.

Qualification: MSc Biotechnology.

**BSC (HONS)/BSc/DipHE/
POLYTECHNIC ADVANCED
CERTIFICATE COMBINED
STUDIES INCLUDING
BIOCHEMISTRY,
MICROBIOLOGY, PHYSIOLOGY**

Course Leaders: Dr Peter Foster: Biochemistry
Professor Glyn Morton: Microbiology
Dr Robert Strettle: Physiology

Full details of these courses may be found under the entry for the Combined Studies Programme on page 115.

This degree is taught as a defined field within the Combined Studies Programme (for further details of which, see page 115) The aims of the course are:

- To present biochemistry as an integrated subject with contributions from several disciplines.
- To prepare the student for future employment in areas such as the biomedical, biotechnological, microbiological and food related industries and teaching.
- To enable the student to understand the basic principles of biochemistry and microbiology.
- To develop the student's ability to design, perform and analyse the results of experiments and trials in the biochemical, microbiological and biotechnological field.
- To develop the student's understanding of the relevance of biochemical and related knowledge to industrial processes including industrial pollution, and to life processes.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally have:

- Studied Chemistry and at least one other science subject beyond GCSE/'O' level and have a pass in one of these at 'A' level. In addition students should normally have studied a biological subject to GCSE/'O' level, or
- Have passes in Chemistry and two other science A/S levels and have passed a biological subject at GCSE/'O' level, or
- An appropriate combination of the above, or
- An appropriate BTEC or alternative qualification equivalent to the above.

A science 'A' level is deemed to be Biology, Physics, Chemistry, Mathematics or equivalent. Candidates who do not fulfill the formal qualifications, especially mature applicants, are encouraged to apply and will be interviewed to assess their suitability to benefit from the programme.

CURRICULUM

In the first year (stage 1) students will study: biochemistry as a core subject together with

either chemistry (core subject) or an ancillary chemistry course, and a third core subject, as well as the programme of information technology and contextual studies courses required by the Combined Studies Programme.

In the second and third years (stage 2) the following courses are required: Biochemistry I, biochemistry II, plant biochemistry, microbiology coordination and control, plant biotechnology, microbial biotechnology, environmental and applied microbiology, together with a contextual studies unit biology, ethics and society, and a project.

Assessment: Each course which comprises the programme is assessed by a combination of internally set examinations and course work or by course work alone.

Qualification: BSc (Hons) Applied Biology (Biochemistry).

Course duration: Three years full-time (34 weeks a year).

BSc (HONS) APPLIED BIOLOGY (BIOMEDICAL SCIENCES)

Course Leader: Dr Peter Foster

This degree is taught as a defined field within the Combined Studies Programme (for further details of which, see page 115) The aims of the course are:

- To present biomedical sciences as an integrated subject with contributions from several disciplines.
- To prepare the student for future employment in areas such as the biomedical sciences, pharmaceutical industry, biochemical diagnostics industry, and teaching.
- To enable the student to understand the scientific basis of disease.
- To develop the student's ability to design, perform and analyse the results of experiments, trials and surveys in the biomedical sciences.
- To enable the student to appreciate the value and limitations of laboratory-based methods in the diagnosis and treatment of disease.

- To enable the student to appreciate the need for a multidisciplinary approach to the solution of health related problems.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally have:

- Studied Chemistry and at least one other science subject beyond GCSE/'O' level and have a pass in one of these at 'A' level. In addition students should normally have studied a biological subject to GCSE/'O' level, or
- Passes in chemistry and two other science A/S levels and have passed a biological subject at GCSE/'O' level, or
- An appropriate combination of the above, or
- An appropriate BTEC or alternative qualification equivalent to the above.

A science 'A' level is deemed to be Biology, Physics, Chemistry, Mathematics or equivalent. Candidates who do not fulfil the formal entry qualifications especially mature applicants, are encouraged to apply and will be interviewed to assess their ability to benefit from the programme.

Course duration: Three years full-time (34 weeks a year)

CURRICULUM

In the first year (stage 1) students will study: biochemistry and physiology as core subjects, plus either chemistry as a core subject or ancillary chemistry with another core subject. In addition, the information technology and contextual studies courses required by the Combined Studies Programme are studied.

In the second and third years (stage 2) the following courses are studied: Biochemistry I, physiology – organ systems, physiology – coordination and control, methods for the investigation of disease, pathophysiology and pharmacology, immunology, nutrition, the nature of disease, together with a contextual studies unit biology, ethics and society, and a project.

Assessment: Each course which comprises the programme is assessed by a combination of internally set examinations and course work or by course work alone.

Qualification: BSc (Hons) Applied Biology (Biomedical Sciences).

*BSC (HONS) HORTICULTURAL TECHNOLOGY AND MANAGEMENT

Course Leader: to be appointed

This is a proposed new degree run jointly by the polytechnic and the nearby Lancashire College of Agriculture and Horticulture. The course is designed to give students the necessary scientific training, practical and management skills for employment in the horticultural industry, which will require increasing numbers of graduates as the industry becomes more complex and technology has an increasing effect upon production systems and service industries.

The degree is a four year sandwich course, consisting of a common first two years, followed by a 12 month industrial placement, and a final year in which students choose a major option of management or biotechnology, and carry out a research project. Lancashire College of Agriculture and Horticulture has excellent facilities in a wide range of horticultural specialities, while the polytechnic has extensive resources and expertise in the biological sciences and biotechnology in particular.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally have:

- Two science 'A' levels including Biology, or equivalent. In addition English Language, Physics, Chemistry, Maths or equivalent should be studied at GCSE/'O' level, or
- A suitable BTEC National Diploma or Certificate.

Students interested in this course should contact the polytechnic School of Applied Biology for further details.

*The course is offered subject to final approval for a 1990 start.

HIGHER NATIONAL DIPLOMA IN SCIENCE (APPLIED BIOLOGY)

Course Leader: Dr Ray Cotton

A two year full-time course which includes specialist options, the student choosing two from biochemistry, microbiology and physiology (applied aspects of these options

include pharmacology, biodeterioration and biotechnology). The diploma allows entry to courses leading to qualifications awarded by the Institute of Biology and direct entry into year 2 of many biology degree courses. There is also the possibility of transfer for exceptionally able students from first year Higher National Diploma directly into the 2nd year of the BSc Combined Studies course leading to a BSc (Hons) Applied Biology in either Biomedical Sciences, Biochemistry or two other named areas arising from the Combined Studies Programme. The course is unit based and the HND is awarded on the successful completion of the equivalent of 16 units. Some units studied are 60 hours (1 unit), others are 90 hours (1.5 units), plus tutorial and seminar time.

The Higher National Diploma is a recognised and acceptable qualification for entry to many industries and government establishments, to some teacher training courses and also to courses leading to professional qualifications in biology and medical laboratory sciences.

QUALIFICATIONS FOR ENTRY

Candidates for admission must normally have:

- At least one GCE 'A' level pass (in Chemistry or Biology with a study of Biology and Chemistry to 'A' level with supporting passes in GCSE/'O' levels at Grade A, B or C, or CSE at Grade 1), or
- A BTEC Certificate or Diploma in Science, based in Chemistry or Biology, or
- Other equivalent qualifications.

Applicants who do not meet the above requirements, especially mature students, may be admitted at the discretion of the polytechnic and are encouraged to contact the course leader.

Course duration: Two years full-time, 36 weeks in year 1 including a short placement period and 35 weeks in year 2.

CURRICULUM

1ST YEAR

- Units in each of laboratory technique: biochemistry and molecular biology; cell biology, immunology and genetics; mammalian physiology (all 1.5 unit length); evolution, diversity and ecology (1.0 unit length).

Industrial experience: All students must spend a period of time working as laboratory technicians

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in industry or in college based work which simulates an industrial laboratory. This industrial experience exercise will normally take place in the last five weeks of the academic year as 1.0 unit of study.

Assessment: Internal, BTEC moderated.

2ND YEAR

■ A unit of plant physiology, and a project (both 1.0 Unit length) are compulsory. In addition students choose two options from the following:

Biochemistry, applied microbiology, applied physiology and pharmacology I (all 1.5 unit length). These lead to fuller operational units in nutrition, biotechnology, applied physiology and pharmacology II (all 1.0 unit length). Again students choose two options.

Finally one unit is devoted to developing personal skills which are required at work such as information technology, communication skills, and working as a member of a team.

Assessment: Internal, moderated.

Qualification: Higher National Diploma in Science (Applied Biology).

CAREERS IN APPLIED BIOLOGY BIOCHEMISTRY BIOMEDICAL SCIENCE AND MICROBIOLOGY

The courses offered in the School of Applied Biology are designed to prepare students for employment as professional biologists in the public and private sector. In the public sector biologists are required by the National Health Service in hospital laboratories, by the Research Institutes and Councils, the Civil Service Science Group i.e. the Ministry of Agriculture, Fisheries and Food, the Nature Conservancy Council, the Home Office Forensic Science Service and the Water Authorities.

Laboratory based work is also available in the private sector including the pharmaceutical industry, the food and drink industries (including the brewing industry) the agrochemical and fertiliser industries, in the biomedical and diagnostic products industry, in contract research and in private research organisations.

Biology, as a scientific discipline, is acknowledged as a good foundation for managerial skills and graduates have been

successful in careers in retailing and sales. Graduate biologists have also been successful in nursing and the caring professions. ■

SCHOOL OF CHEMISTRY

Head of School: James R Lusty BSc PhD CChem MRSC

MASTER OF PHILOSOPHY (MPhil) OR DOCTOR OF PHILOSOPHY (PhD) BY RESEARCH

Enquiries to: Dr James Lusty

QUALIFICATIONS FOR ENTRY

Entrants will have a degree of a British university or the CNAA with chemistry as a main subject, or the Graduateship of the Royal Society of Chemistry, or an equivalent qualification. Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic. For mature students, lack of the formal qualification may be compensated for by appropriate work experience.

QUALIFICATION

Students register with the CNAA and the higher degree is awarded on submission of a satisfactory thesis and successful completion of a *viva voce* examination.

AREAS OF RESEARCH

Opportunities for research are available in design of coordination compounds for use as catalysts, synthetic aromatic and heterocyclic chemistry, chemistry and photochemistry of biologically active sterically hindered basic dyes, organic reactions on clay, removal of metal ions by floatations methods, environmental distribution of trace metals, organometallic and medicinal chemistry of the platinum group metals. Supervision is also provided for candidates wishing to register their own topics which will usually be work related.

MSc ANALYTICAL CHEMISTRY

Course Leader: Dr Don Brattan

A course leading to the degree of MSc of the University of Lancaster. The course is

project based and students will tackle a number of selected projects in a variety of topics during the course.

QUALIFICATIONS FOR ENTRY

Candidates for admission will normally be expected to be over 21 years of age and must demonstrate that they are capable of studying at a Masters level. This is best done by holding a degree of a British university or CNAA, with chemistry as a main subject or GRSC or an equivalent qualification. However, experience in a chemical field may also be taken into account.

Applications from mature students are particularly welcome.

CURRICULUM

■ Selected topics will be studied by a project approach backed by tutorials.

Attendance: Flexible, as agreed by course leader.

Qualification: Students who reach a satisfactory standard will receive the degree of MSc Analytical Chemistry awarded by the University of Lancaster.

BSc (HONS)/BSc/DipHE/ POLYTECHNIC ADVANCED CERTIFICATE COMBINED STUDIES INCLUDING CHEMISTRY

Subject Leader: Alan Pidcock

Full details of this programme may be found under the entry for the Combined Studies Programme on page 115.

BSc (HONS)/BSc CHEMISTRY

Subject Leader: Professor Alan Pidcock

The School of Chemistry is extensively involved in the Combined Studies Programme at the polytechnic. The programme is based on a credit accumulation scheme in which students may assemble courses up to the honours degree level by taking units from up to three subjects in the first year, together with

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contextual studies and information technology. The Chemistry component within the scheme can be sufficiently large to qualify for an honours or an unclassified degree in chemistry, (BSc Chemistry). Students who wish to combine significant amounts of other subjects with chemistry can take one of several routes that involves 20 to 40 chemistry credits in the degree programme.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally have:

- Studied and passed Chemistry at 'A' level together with one other science 'A' level or Mathematics, or
- Should have a pass in A/S level Chemistry and two other science A/S levels, or
- An approximate equivalent combination of the above, or
- BTEC or other qualifications deemed equivalent to the above.

Students who intend to apply for entry to the Combined Studies Programme should refer to page 115 of this prospectus.

Course duration: Three years full-time (34 weeks/year).

CURRICULUM

■ The units in chemistry have been designed to be as flexible as possible and to give an interesting and balanced pattern of study in the major branches of the subject. First year courses concentrate on fundamentals such as energetics, spectroscopy, structures and bonding, solutions and basic organic chemistry which consolidate and extend the theoretical framework of chemistry, develop skills in manipulation, observation, measurement and interpretation. They encourage a critical approach through problem solving exercises and practical work. In the second and third years of full-time study the core material is developed further and the exciting interfaces of chemistry with biological and physical sciences are explored. In the final year students shape the pattern of their studies in chemistry by assembling a programme from a range of options and they may also carry out a project in an area of chemistry of their choice.

Assessment: Each course which comprises the programme is assessed by a combination of

internally set examinations and coursework or by coursework alone.

Qualification: BSc (Hons) Chemistry or BSc Chemistry.

HIGHER NATIONAL DIPLOMA IN SCIENCE (CHEMISTRY) (THREE YEAR SANDWICH COURSE)

Course Leader: Dr James Dodd

Industrial Placement Tutor: Dr Alan Jones

This is a sandwich course with an industrial training period which occurs after a year of the course. The course is unit based and the HND is awarded on the successful completion of 20 units. At the end of each unit the student is awarded a pass, a pass with merit or a pass with distinction. Students are placed in industry, government or educational establishments for a sandwich period of up to a year and then resume their studies at the polytechnic. Students find this period of industrial placement extremely useful and many return to these establishments for permanent employment.

There is also the possibility of transfer, at the end of year one, for exceptionally able students from the first year Higher National Diploma to a BSc course. At the end of the third year, students may additionally sit the Part I examinations of the Graduateship of the Royal Society of Chemistry. Success in the GRSC Part I examination qualifies the student for admission to the Licentiate of the Royal Society of Chemistry. The student may then progress on to the third year of the BSc (Hons) programme in Chemistry.

The Higher National Diploma is a recognised and acceptable qualification for entry to industry and allows the student access to degree courses and courses leading to professional qualifications.

QUALIFICATIONS FOR ENTRY

Candidates for admission to the first year of the course should normally have:

- Appropriate passes in the ordinary level of the General Certificate of Education/GCSE at Grade C or above (eg English Language, Mathematics

and two science subjects) together with a study of Chemistry to 'A' level or a pass in A/S level Chemistry or a pass in 'A' level Chemistry, or

■ A BTEC Certificate or Diploma in Science that includes chemistry, laboratory techniques, mathematics, and/or physics units at an appropriate level, or

■ Other equivalent qualifications.

It is recognised that some mature students with suitable experience may have satisfied the necessary pre-requisites without having obtained formal qualifications. Applicants who do not meet the above requirements, especially mature candidates, may be admitted at the discretion of the polytechnic and will receive favourable consideration.

Students who have deficiencies in their entry qualifications may also be considered. They will be required to take additional (bridging) courses as part of the HND programme. Students may also wish to consider taking Analytical Chemistry Open Learning Units (ACOL) as part of this bridging programme. Details can be found in the part-time prospectus.

Polytechnic examinations taken during the course provide the additional qualifications for entry to Part I of the Graduate Membership of the Royal Society of Chemistry and entry to the final year of the BSc (Hons) Chemistry course.

Note: It is recommended that applications for LEA maintenance grants should be for the *four year* HND/BSc sandwich course. During the training period in industry a salary is paid to the student by the firm.

CURRICULUM

1ST YEAR

■ Inorganic, organic and physical chemistry, broadening studies including mathematics and physics.

Course duration: September to July (35 weeks)

Assessment: Internal, BTEC moderated.

2ND YEAR

■ Sandwich placements

3RD YEAR

■ Chemistry, advanced analytical chemistry, broadening studies and project.

Course duration: September to July (35 weeks)

Assessment: Internal, BTEC moderated and GRSC Part I (optional).

Qualification: Higher National Diploma in Science (Chemistry) and GRSC Part I (optional).

GRADUATE MEMBERSHIP OF THE ROYAL SOCIETY OF CHEMISTRY PART ONE

Course Leader: Dr Bob Brown

Students taking GRSC courses must register as student members of the Society and should write for details to the Registrar, The Royal Society of Chemistry, 30 Russell Square, London, WC1B 5DT. Students receive literature from the Society and may attend meetings of its members.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally possess a HND or HNC in Science (Chemistry) together with GCE Advanced level or equivalent in one scientific/mathematical subject other than Chemistry. Applicants with alternative entry qualifications, especially mature candidates, are encouraged to contact the course leader.

CURRICULUM

1ST YEAR (PART I)

■ A review and extension of chemical subjects studied in the HND/C Science (Chemistry) course.

Students studying for the HND can take the Part I year alongside their third year of the HND.

Course duration: One-year full-time September to July (36 weeks).

Assessment: Internally set GRSC Part I examinations and course work; externally moderated.

Qualification: Graduateship of the Royal Society of Chemistry Part I.

CAREERS IN CHEMISTRY

The work of a chemist may involve teaching, research, development, production and control.

There is a national shortage of graduate chemistry teachers, particularly those with some

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industrial experience. The BSc is recognised by the Department of Education and Science as an academic qualification for science teachers.

Pure or fundamental research is work on projects which may not have any immediate applications but will add to the store of existing knowledge and have a long term influence upon new products and production methods. Applied research makes use of present knowledge and builds upon it with some immediate end in view, for example to produce a new synthetic fibre or a new drug.

Development is a branch of applied research and is concerned with the conversion of a laboratory scale process to a chemical plant process.

Chemists on the production side of industry are often engaged in supervising chemical plant processes and carry responsibility for maintenance of the output and the quality of the product. They must possess technical ability and supervisory skills and must be willing to take decisions. In quality control laboratories, raw materials and manufactured products are tested during all stages of production. The qualified chemist has to be constantly aware of new developments in analytical methods and of new instruments available commercially.

In the chemical industry a large proportion of the managers are chemically qualified. The rapid adaptation to accommodate new products and the commercial exploitation of research findings requires such a management policy. For the able and industrious, the highest executive appointments and directorships may be obtained.

The success of the chemical industry is the result of the continued efforts of scientists both in research and development and in the rapid application of new knowledge to production methods. The industry requires a regular recruitment of qualified staff into responsible posts and the biggest demand is for qualified chemists (BSc, MRSC and LRSC). Chemists are also required by polytechnics, universities, colleges of technology, schools, hospitals, government sponsored research institutions and independent organisations. There is an increasing shortage of chemistry diplomates and graduates and career opportunities are currently very good indeed. ■

SCHOOL OF MATHEMATICS AND STATISTICS

Head of School: Professor Ray Harris BSc PhD
ARCS FIMA FIS

MASTER OF PHILOSOPHY (MPhil) OR DOCTOR OF PHILOSOPHY (PhD) BY RESEARCH

Enquiries to: Professor Ray Harris

QUALIFICATIONS FOR ENTRY

Applicants are most likely to possess a first degree in Mathematics or Statistics from a British university or CNAAs or equivalent qualification, for example the Graduate Diploma of the Institute of Statisticians, although other experience could be regarded as appropriate. For mature students lack of formal qualifications can be compensated for by appropriate work experience.

QUALIFICATION

Students register with the CNAAs and the higher degree is awarded on submission of a satisfactory thesis and successful completion of a *viva voce* examination.

AREAS OF RESEARCH

Current interests of the research groups of the school include combinatorics, modelling three-dimensional flows, intelligent knowledge-based systems and statistical modelling. Supervision is also provided for candidates wishing to register their own topics which usually are work related.

BSC (HONS)/BSC/DipHE/ POLYTECHNIC ADVANCED CERTIFICATE COMBINED STUDIES INCLUDING MATHEMATICAL SCIENCES

Subject Leader: Arthur Pewsey

Full details of this course may be found under the entry for the Combined Studies Programme on page 115.

*BSC (HONS)/BSC APPLIED STATISTICS (FOUR-YEAR SANDWICH COURSE)

Subject Leader: Professor Ray Harris

By their nature few disciplines progress without the science of statistics and the advent of modern data collection techniques ensure that efficient methods of data analysis are vital. The successful practical statistician uses appropriate methods, from the wide range available, to work with others to investigate problems. To do this the statistician must be able to appreciate the context and practicalities of the original problem and communicate clearly with and relate well to the individuals who raise the original problem. Statisticians work in areas as diverse as heavy industry, social and caring professions, the pharmaceutical industry, accounting, and so on.

This course gives a broad training in applied statistics as well as ensuring that students continue to study a field of application of statistics – hence its setting within the Combined Studies Programme. It is important to note that this does not limit career opportunities for there is much mobility of statisticians at all levels between different application areas.

QUALIFICATIONS FOR ENTRY

Students should normally have a pass in 'A' level or A/S level Mathematics or Statistics. Experiential credit in lieu of public examinations will be seriously evaluated.

CURRICULUM

1ST YEAR

■ Students study three subjects including mathematical sciences or statistics.

2ND YEAR

■ Students cover a wide range of statistical topics, both theoretical and applied and maintain a limited study of one other subject – usually a continuation of one from their first year.

3RD YEAR

■ The third year sees students undertaking a one year placement, arranged by the polytechnic, in a company or organisation involved in statistical work. In the final year many areas of statistics are studied with options to specialise. A project also forms part of the final year studies.

Course duration: 4 year sandwich (34 weeks in years 1, 2 and 4 and 48 weeks in sandwich year 3)

Qualification: BSc (Hons) Applied Statistics.

*Subject to final approval.

GRADUATE DIPLOMA IN STATISTICS

Course Leader: Ralph Peace

This is a one-year full-time course, commencing early October and ending in July of the following year. The course leads to the award of the Graduate Diploma in Statistics of the Institute of Statisticians, and is recognised as being of good honours degree equivalent by all major employers including government Statistical Services, the Civil Service, the Department of Education and Science, the pharmaceutical industry and the governments of many countries. It is also accepted as an entry qualification to postgraduate qualifications such as MSc, MPhil and PhD. The Institute is the recognised professional body for statisticians, and its qualifications are held in high esteem in a large number of countries.

The course is ideal for anyone wishing to work as a statistician in a post for which a graduate qualification is necessary.

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QUALIFICATIONS FOR ENTRY

Candidates for admission should normally possess:

- Higher Certificate in Statistics of the Institute of Statisticians, or
- A Higher National Diploma in Mathematics, Statistics and Computing.

Candidates with other qualifications in statistics which may be deemed equivalent are encouraged to contact the School of Mathematics and Statistics. Applications for mature candidates are particularly welcome.

CURRICULUM

The course will consist of two "core" themes, statistical theory and applied statistics together with an option chosen from medical statistics, applied econometrics, operational research and statistical computing. A particular feature of the course will be case studies involving all aspects of statistical analysis in practice. Topics covered in the Applied Statistics core module include sample surveys, design of experiments, and multivariate analysis.

Course duration: One year full-time September to July (34 weeks).

Assessment: The course will be assessed by a combination of internal examinations and course work.

Qualification: Graduate Diploma in Statistics of the Institute of Statisticians.

HIGHER NATIONAL DIPLOMA IN MATHEMATICS STATISTICS AND COMPUTING

Course Leader: Dr David Parker

A two year full-time course run in conjunction with Blackburn College leading to the award of Higher National Diploma in Mathematics, Statistics and Computing of the Business and Technician Education Council. The course is designed to provide a broad training in mathematics, statistics and computing which forms the basis of a career in any of these disciplines in many fields of application. The special features of the course

include a study of computer mathematics, a considerable amount of operational research and the use of modelling to integrate the different subject areas.

Students who achieve good results on the HND may be able to transfer to an appropriate stage of a degree course. In particular, a number may transfer either at the end of year one or on completion of the course to the second year of the BSc (Hons) Combined Studies Programme in Mathematical Sciences, although such transfer cannot be guaranteed. Candidates who complete the course will also be considered for entry to the Graduate Diploma in Statistics – an honours degree level qualification.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally possess an 'A' level in Mathematics. However the school is always willing to consider applicants with alternative mathematics or statistics entry qualifications especially mature students. Such candidates should contact the course leader or Head of School.

CURRICULUM

1ST YEAR

■ The subjects studied during the first year of the course include applied statistics, algebra, calculus, numerical methods, programming and computer systems architecture.

These constitute the foundation for further study of quantitative practical problems. As an introduction to solving such problems students undertake modelling exercises, both individually and in groups. This enables them to draw on the subject material from all areas of the course and to demonstrate practical applications of their skills.

The first year of the course may be undertaken at the polytechnic or Blackburn College with all students completing their studies by attending the second year at the polytechnic.

Course duration: September to July (35 weeks).

Assessment: Internal, BTEC moderated.

2ND YEAR

■ Further studies in mathematics, applied statistics, programming and numerical methods are complemented by operational research, with an increased amount of time each week being

devoted to modelling. In addition students undertake an individual project under the supervision of a member of staff and this will often be in conjunction with an external organisation.

A particular feature of the second year is a study of discrete mathematics, a developing area of mathematics of particular relevance to computer science.

Course duration: September to July (35 weeks).

Assessment: Internal, BTEC moderated.

Qualification: Higher National Diploma in Mathematics, Statistics and Computing.

CAREERS IN MATHEMATICS AND STATISTICS

After successfully completing this course students will be in a position to specialise in any of the three disciplines named in its title or to follow a more general quantitative-based career. The qualification is accepted nationally and recognised by the Institute of Mathematics and its Applications and the Institute of Statisticians as giving exemption from some of their professional examinations.

There is a continuing strong demand for suitably qualified personnel to work in technical support or advisory groups within industrial, commercial and public sector organisations. These groups undertake the provision and analysis of information for assistance in planning and decision making. In particular there is a need for computer programmers and analysts who have knowledge of numerical and statistical procedures and packages. ■

SCHOOL OF PHYSICS AND ASTRONOMY

*Head of School: Professor Ian Robson BSc PhD
FRAS CPhys FInstP*

MASTER OF PHILOSOPHY (MPhil) OR DOCTOR OF PHILOSOPHY (PhD) BY RESEARCH

Enquiries to: Professor Ian Robson

QUALIFICATIONS FOR ENTRY

Entrants for a higher degree will normally have a degree of a British university or the CNA A with physics or astronomy as a main subject, or Graduateship of the Institute of Physics, or an equivalent qualification. Applicants who do not meet the above requirements may be admitted at the discretion of the polytechnic. For mature students lack of the formal qualifications may be compensated for by appropriate work experience.

QUALIFICATION

Students register with the CNA A and the higher degree is awarded on submission of a satisfactory thesis and successful completion of a *viva voce* examination.

AREAS OF RESEARCH

Opportunities for research vary from time to time but will normally be available in the following fields: liquid crystals, magnetism and magnetic materials, advanced composite materials, infrared studies of active galaxies, interstellar spectroscopy, circumstellar shells, novae and star formation, and advanced instrumentation. Supervision is also provided for candidates who wish to register their own topics which will usually be work related.

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**BSc (HONS)/BSc/DipHE/
POLYTECHNIC ADVANCED
CERTIFICATE COMBINED
STUDIES INCLUDING
ASTRONOMY, APPLIED
PHYSICS**

Subject Leaders: Dr Doug Whittet (Astronomy)
and Dr Mike Holmes (Applied Physics)

Full details of these Combined Studies options may be found under the entry for the Combined Studies Programme on page 115.

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BSc (HONS) ASTROPHYSICS

Subject Leader: Dr Mike Bode

Astrophysics is a new and exciting degree topic at the polytechnic, although it is a logical progression from well-established courses in astronomy, physics and mathematics. Students studying astrophysics, like those following one of the astronomy courses, will gain an appreciation of the cosmos as an area in which fundamental physical laws, concepts and principles can be explored and interpreted. The astrophysics course will however place more emphasis on the mathematical and physical background, with less emphasis on experimental techniques, than does astronomy. As the student progresses through the course, he or she will acquire not only knowledge and skills from astronomy and physics but will also pursue courses in mathematics and computing which will enhance their interpretative abilities. It should be stressed at the outset that students studying astrophysics have a more defined progression through the two stages of the degree than students in subjects which are not defined fields. As a consequence, the only award offered on completion of the course is an honours degree. For further details of the Combined Studies Programme, see Page 115.

QUALIFICATIONS FOR ENTRY

Students should normally have at least a pass in 'A' level Mathematics, and either a pass in 'A' level Physics, or a study of Supplementary

Physics as a first year co-requisite. Alternatively, students will be admitted with a pass in four A/S levels, which must include a pass in A/S Physics, and a pass in A/S Mathematics.

Course duration: Three years full-time (34 weeks/year).

CURRICULUM

■ In the first year (stage 1) of the degree, students study the core subjects of astronomy, applied physics and mathematics, including statistics, numerical methods and pure mathematics. Fortran computer programming will also usually be studied in the first year.

■ In the second and third year (stage 2) the following courses are included in the curriculum: Surface layers of stars, origin and evolution of the chemical elements, relativity and cosmology, electromagnetism and optics, physics of matter, numerical methods, mathematical methods, formation, structure and evolution of stars, emission line regions in astrophysics, high energy astrophysics, modern imaging processes, and nuclear and particle physics.

The first year astronomy laboratory is held at one of the polytechnic's observatories, and opportunities for observational work will be taken as they arise. In the second year, astrophysics students will have a specially designed laboratory course, run in one of the physics laboratories in the polytechnic. The final year project will allow students to pursue original research in conjunction with one of the active research groups within the School of Physics and Astronomy.

Assessment: Each course which comprises the programme is assessed by a combination of internally set examinations and course work or by course work alone.

Qualification: BSc (Hons) Astrophysics.

**HIGHER NATIONAL DIPLOMA
IN SCIENCE (APPLIED PHYSICS)**

Course Leader: Dr Phil Bissell

A three year sandwich course in Applied Physics (with Electronics) in which the applications of physics for new technologies are

emphasised. The second year is an industrial year in which students spend the first term at the polytechnic and the remaining two terms in an industrial training placement gaining physics related work experience.

The course is unit-based and the Higher National Diploma is a very worthwhile qualification in its own right.

The course is also credit rated against the BSc Combined Studies degree. This allows academically inclined students reaching a high standard on this course to transfer to the second year of the BSc Combined Studies course to study Applied Physics and Mathematical Sciences or Applied Physics and Astronomy or Applied Physics and Electronics at the end of the first year. Some candidates may transfer to the BSc (Hons) Astrophysics course. Students completing the HND course may also be admitted directly into the third year of the BSc (Hons) Combined Studies Programme to study similar subject combinations to those outlined above. Further details of the Combined Studies Programme can be found on page 115.

QUALIFICATIONS FOR ENTRY

Candidates for entry should normally possess:

- A pass at 'A' level in Physics and a study of Mathematics beyond GCSE/'O' level, or
- A study of Physics to 'A' level together with an 'A' level pass in Mathematics, or
- A BTEC OND/C in Science with Physics and Mathematics as major subjects, or
- A BTEC OND/C in Engineering which includes a major study of Electrical Principles or Electronics and Mathematics, or
- Any qualification which is regarded as equivalent to the above.

Anyone without the standard requirements (such as any 'A' level, a study of Physics and Mathematics beyond GCSE/'O' level level) together with a keen interest in pursuing applied physics in higher education will be considered sympathetically and are encouraged to apply.

CURRICULUM

1ST YEAR

■ Physics, mathematics, electronics, materials investigation, instrumentation, vacuum technology, laboratory techniques, technical skills, use of computers, contextual studies.

Course duration: September to July (34 weeks)

Assessment: Internal, BTEC moderated.

2ND YEAR

■ The polytechnic based portion of this year is designed to enhance the student's skills and appreciation of the industrial environment prior to taking up the sandwich placement.

■ Group project, physics, mathematics, health and safety at work, computing.

Course duration: September to December (11 weeks) followed by the industrial training period.

Assessment: Continuously assessed coursework, BTEC moderated.

3RD YEAR

■ Physics, mathematics, electronics, materials investigation, instrumentation, nuclear instrumentation, applied acoustics, microcomputer interfacing, images and information, project.

Course duration: September to July (34 weeks)

Assessment: Internal, BTEC moderated.

Qualification: Higher National Diploma in Science (Applied Physics). Successful candidates will be eligible for Associate Membership of the Institute of Physics.

CAREERS IN PHYSICS

Careers in physics may involve teaching, research, development, production and control. Opportunities exist in universities, polytechnics, schools, hospitals, research establishments, commerce and industry.

Many physicists are attracted to careers in the electrical and electronics industries and the nuclear industry whilst those interested in the mathematical aspects of the subject may, for example, seek employment in the aircraft industry or computer work. Specialised applications of physics draw some to the oil industry, to instrumentation and control work and to development. Careers in general management, production, personnel or sales are however equally accessible to those with a physics qualification.

For those physicists not attracted to a career in industry there are a host of opportunities in government research establishments, local authorities and in hospitals, where physicists

work in teams in connection with the use of radiation and in the development of a variety of apparatus for assisting to maintain life in those suffering from diseased or damaged organs.

In the long term, good career prospects imply full professional recognition of competence by membership of one or more of the major professional bodies such as the Institute of Physics. Courses in the polytechnic are designed to facilitate such recognition.

CAREERS IN ASTRONOMY

Graduates with a degree which includes astronomy generally have no problems in obtaining suitable employment or placement on postgraduate courses. Astronomy students are generally highly motivated, a quality much valued by prospective employers. Many graduates find employment in industry or the Civil Service, utilising skills in areas such as data analysis, mathematical modelling, detection techniques, instrument design and computer interfacing. In addition, physical science graduates are much in demand in the teaching profession.

A wide range of opportunities for postgraduate work exist in universities and polytechnics, both in the UK and overseas. Research programmes or advanced courses of study are available in the general area of astronomy, astrophysics, space research and geophysics, leading to Masters degrees (1-2 years) or Doctorates (3 years). Other opportunities include the Postgraduate Certificate in Education, and other vocational courses not directly related to astronomy which require a science or mathematics degree.

POLYTECHNIC FACILITIES FOR ASTRONOMY

The polytechnic has two well equipped observatories. The main telescopes are two 15-inch refractors and a multi-mirror telescope of 1m equivalent diameter. Students carry out experiments with seven 8-inch Celestron telescopes using PIN diode photometers, photomultipliers and a CCD camera. Northern and southern sky surveys are used in the polytechnic where the astronomy group have a STARLINK data reduction and image computer processing node linked by electronic networks to other sites and observatories abroad. ■

SCHOOL OF PSYCHOLOGY

Head of School: Peter Young BA MSc

MASTER OF PHILOSOPHY (MPhil) OR DOCTOR OF PHILOSOPHY (PhD) BY RESEARCH

Enquiries to: Peter Young

QUALIFICATIONS FOR ENTRY

To register for the degree of MPhil or MPhil with the possibility of transfer to PhD, a candidate must normally hold a first or upper second class degree in Psychology or joint Psychology from a British university or the CNAA. However, candidates with alternative professional qualifications are encouraged to apply especially mature students with relevant work experience which may compensate for a lack of formal qualification.

QUALIFICATION

Students register with the CNAA and the higher degree is awarded on submission of a satisfactory thesis and completion of a *viva voce* examination.

AREAS OF RESEARCH

Areas of research: Staff interests cover a wide range of subjects. A detailed booklet entitled "Research and Consultancy in Psychology at Lancashire Polytechnic" is available on request from the School of Psychology. Supervision is provided for candidates wishing to register their own topics which will usually be work related.

BSC (HONS) PSYCHOLOGY

Course Leader: Dr Maurice McCullough

First validated in 1974 by the Council for National Academic Awards, the course, which leads to the award of an honours degree in Psychology, was given indefinite approval in 1984. Its title has been changed from BA to BSc. Graduates are eligible for membership of the

British Psychological Society.

The course aims to provide a thorough knowledge of the major areas of psychology, while at the same time giving students the opportunity of specialising in areas of applied and applicable psychology in their third year. The course also aims to equip students with skills in communication, evaluation of evidence and argument, experimental design, and data collection and analysis, which will prove useful or necessary in their future careers.

Most of the staff are actively involved in research and have published frequently and widely. Staff-student relations are informal and cordial.

QUALIFICATIONS FOR ENTRY

Candidates for admission to the course will normally be at least 18 years of age. The normal minimum entry qualifications are:

- Five GCE/GCSE passes including at least two at 'A' level, or
- Four GCE/GCSE passes including at least three at 'A' level, or
- Six GCE/GCSE passes including at least three A/S levels, or
- A good standard of pass in the Ordinary National Diploma or Certificate, or
- A BTEC Certificate or Diploma, or
- An acceptable professional qualification gained by examination.

Students will normally be expected to have at least a GCSE/'O' level pass (or its equivalent) in Mathematics and English Language.

Applications from mature students who do not meet the above requirements are particularly invited.

CURRICULUM

1ST YEAR

(figures in brackets indicate approximate class contact hours)

- Introduction to Psychology 1 (42)
- Introduction to Psychology 2 (42)
- Laboratory Course (45)
- Experimental Design/Analysis of Data I (65)
- Introduction to Psychobiology (33)
- Topics in Psychology (20)
- Origins of Psychology (10)
- Ancillaries in Social Context of Health and Welfare (20)
- Introduction to Information Technology (15)

2ND YEAR

- Social Psychology (34)
- Developmental Psychology (34)
- Cognitive Psychology (34)
- Physiological Psychology (34)
- Personality and Abnormal Psychology (34)
- Laboratory Course (144)
- Experimental Design/Analysis of Data II (75)

3RD YEAR

- Explanation in Psychology (20)
- Options (up to 20 each):

Eight are selected with the constraint that at least one from each group is selected:

Group 1:

Social Cognition
Personal Relationships
Self and Identity
Sex and Gender
Language and Communication

Group 2:

Social Context of Development
Children with Special Needs
Psychology, Children with Computers

Group 3:

Abnormal and Clinical Psychology; or
Treatment in Clinical Psychology and Psychiatry
Clinical Neuropsychology
Grief and Loss

Group 4:

Psychology of Reading
Applied Experimental Psychology
Natural and Artificial Vision Systems
Psycholinguistics
Thinking

Group 5:

Drugs and Behaviour
The Psychology of Eating and Drinking
Psychobiology of Aggressive Behaviour

Group 6:

Environmental Psychology
Personnel Psychology
Psychology and Art
Psychology and Law
Organisational Psychology

Assessment: At the end of year 1 there are two examinations in psychology and one each in psychobiology and experimental design/analysis of data. Unless there is a failure in three or more papers, or in both psychology papers, failed papers may be retaken in September. To progress to the second year, students must have passed these examinations and have passed course work assessment (based on five laboratory reports and seven essays).

At the end of year 2 there is an examination in each of the six lecture courses (see above). Again, there is a coursework assessment (five laboratory reports and two essays).

During year 3 there is an empirical project; at the end of the year there is an examination in explanation in psychology and in each of the chosen options. Finals classification is based on year 2 and year 3 performance.

Qualification: BSc (Hons) Psychology.

BSC (HONS)/BSC/DipHE/ POLYTECHNIC ADVANCED CERTIFICATE COMBINED STUDIES INCLUDING PSYCHOLOGY

Subject Leader: Paul Pollard

Full details of this course may be found under the entry for the Combined Studies Programme on page 115.

BSC (HONS) NEUROSCIENCE

Course Leader: Peter Young

This new degree which is taught in collaboration with the School of Applied Biology as a defined field within the Combined Studies Programme was first validated in 1987 (for further details of the Combined Studies Programme see page 115). Neuroscience is a multi-disciplinary subject, defined by a common interest in the workings of the nervous system from the biochemistry of the neuron, to the macro study of behaviour. The following aims of the course may be helpful.

- To present neuroscience as a coherent integrated subject with contributions from several disciplines.
- To enable the student to understand the basic principles of biochemistry, physiology and psychology.
- To provide the student with an understanding of the techniques of experimental biochemistry, physiology, psychology, computing and experimental design in relation to neuroscience.
- To enable the student to understand the social and economic relevance of neuroscience.
- To prepare the student for future employment or advanced training in relevant industrial or academic organisations.
- To enable the student to appreciate the need for a multidisciplinary approach to neuroscience.

QUALIFICATIONS FOR ENTRY

Candidates for admission should normally have:

- Studied Chemistry and at least one other science subject beyond GCSE/'O' level and have a pass in two of these at 'A' level. In addition students should normally have studied a biological subject to GCSE/'O' level, or
- Passes in Chemistry and two other science 'A/S' levels and have passed a biological subject at GCSE/'O' level, or
- An appropriate combination of the above two, or
- A BTEC Certificate or Diploma or other qualification deemed to be equivalent to the above.

A science 'A' level or 'A/S' level is deemed to be Biology, Physics, Chemistry, Mathematics or equivalent.

Applications from mature students who do not meet the above requirements are particularly invited.

Course duration: Three years full-time (34 weeks/year)

CURRICULUM

In the first year (stage 1) of the degree students study three core subjects psychology, physiology and biochemistry together with ancillary statistics, ancillary chemistry and basic programming and IT courses. In the second and third years (stage 2) the following courses form the curriculum: physiological psychology, experimental design, computer interfacing,

physiological co-ordination and control, biochemistry, integrative neuroscience, frontiers in neuroscience, project, drugs and behaviour, neuromuscular physiology, nervous system pharmacology, the neuropsychology of complex behaviour and either, clinical neuropsychology or psychology of aggressive behaviour.

Assessment: Each course which comprises the programme is assessed by a combination of internally set examinations and course work or by course work alone.

Qualification: BSc (Hons) Neuroscience.

BSC (HONS) COGNITIVE SCIENCE

Course Leader: Mike Stone

This is a defined field honours degree course within the Combined Studies Programme. Cognitive Science students study and compare information processing capabilities of both humans and machines from an interdisciplinary perspective. Fundamental questions in this area, which are all studied with respect to both artificial and natural systems, concern the nature of knowledge representation, problem solving, and the analysis and processing of visual and natural language inputs.

The course also places considerable emphasis on the practical applications of computer based decision aids, such as expert systems.

QUALIFICATIONS FOR ENTRY

The only specific entrance requirement is a GCSE/'O' level in Mathematics, in addition to the normal entry requirements for the Combined Studies Programme (see page 115). Applications from mature students who do not meet the above entry requirements are particularly welcomed.

Course duration: Three years full-time (34 weeks/year)

CURRICULUM

In order to register for Cognitive Science at Stage 2, students must have successfully completed the first year 10 credit courses in Psychology, Computing, and Linguistics. They must also

have passed the 2 credit courses in Ancillary Statistics.

In the second year students will take courses in information systems analysis, artificial intelligence techniques, cognitive psychology, experimental design, meaning, and issues in cognitive science 1. They must also fulfill the general requirements for contextual studies components. In the third year students will take courses in man-machine interface, knowledge-based systems, decision making, natural and artificial vision systems, thinking, experimental approaches to human problem solving and reasoning, pragmatics and issues in cognitive science 2, together with a project.

Assessment: Each course which comprises the programme is assessed by a combination of externally set examinations and course work or by course work alone.

Qualification: BSc (Hons) Cognitive Science.

CAREERS IN PSYCHOLOGY

The traditional fields of employment for the psychology graduate are educational, clinical and occupational psychology. To gain entry to a post-graduate course leading to a professional qualification in one of these areas, an honours degree, in which psychology is a major field of study, is necessary. Although there is still a national shortage of professionally qualified psychologists the competition for places on these courses is becoming progressively more severe and candidates are normally expected to have obtained a good honours degree. Some graduates remain in the academic world by taking higher degrees, usually by research, and then go on to take up teaching or research posts in the higher education sector.

Because the number of psychology graduates is increasing at a faster rate than the number of opportunities available in the major professions, most graduates now find directly related employment elsewhere. In the caring professions, commerce and administration, psychology graduates are particularly well received as they are equipped with a range of transferable skills ranging from statistical and computing expertise, written and oral report preparation, to an understanding of group-dynamics in a workplace situation. These skills when combined with a choice of advanced

subjects tailored to their individual career interests make our graduates attractive to a very broad range of employers.

Further information on postgraduate courses and careers in psychology can be obtained by writing to the British Psychological Society, St Andrews House, 48 Princess Road East, Leicester LE1 7DR.

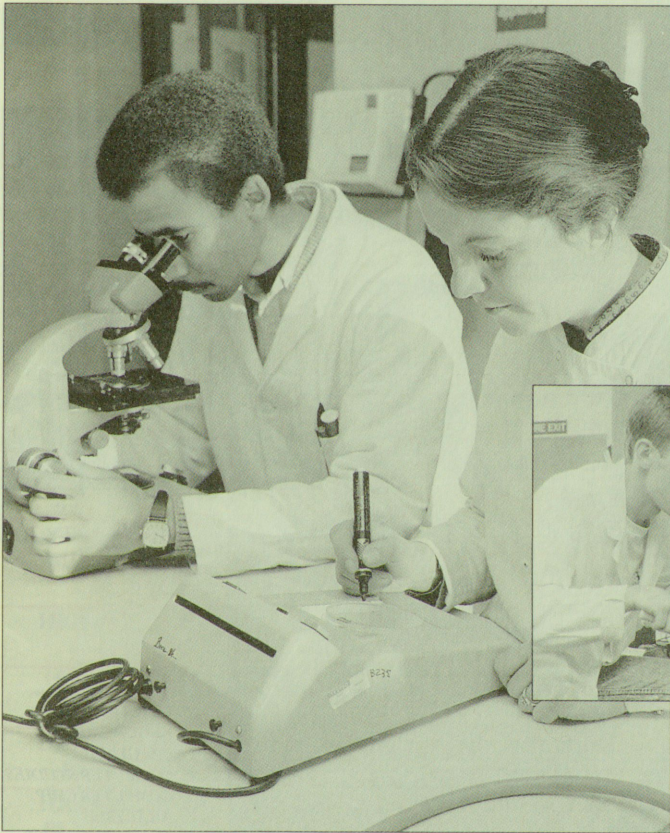
CAREERS IN NEUROSCIENCE

Neuroscience is arguably the fastest growing science at the moment with a broad range of opportunities every year to pursue Masters or Doctoral programmes in the UK, the EEC and numerous international centres. The pharmaceutical industry has a particular need for neuroscience graduates and the transferable skills acquired in the course are of interest to a broad spectrum of employers.

CAREERS IN COGNITIVE SCIENCE

Now that computer systems are being developed to tackle a range of tasks requiring knowledge and judgement, often to be used by people who have relatively little technical expertise, there is a demand for graduates with knowledge and skills in the areas of psychology, computing and linguistics. Such graduates understand about how computer systems work, how people tackle problem-solving activities, and the way in which language is used as a communication medium both 'person to person' and 'person to machine'. Graduates will have good opportunities to work in software houses, research and development and industry. Most large companies are investing in artificial intelligence projects and further funding comes from developments such as ALVEY. As research and development in speech processing, knowledge based systems, and man-machine interaction progresses, the demand for graduates with interdisciplinary skills in these areas is increasing and such personnel are in relatively high demand. The degree will also be useful to students hoping to pursue postgraduate research as there has been an increasing number of research assistantships and studentships in the area.

Career opportunities in this area are expanding rapidly in a wide variety of industries as well as in commerce and public sector establishments. ■

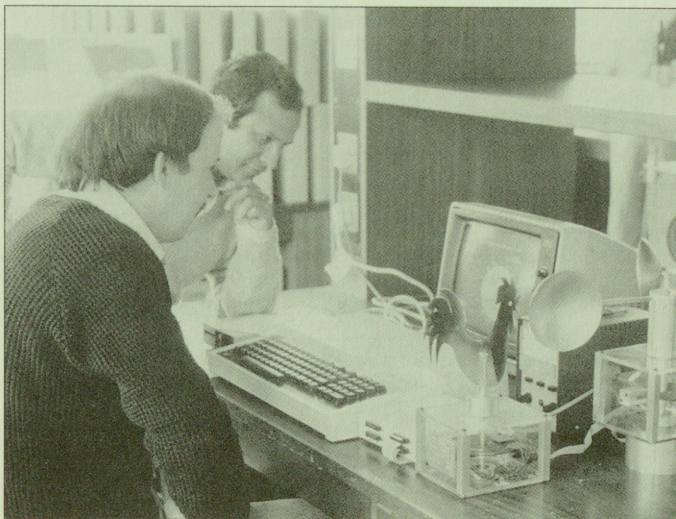


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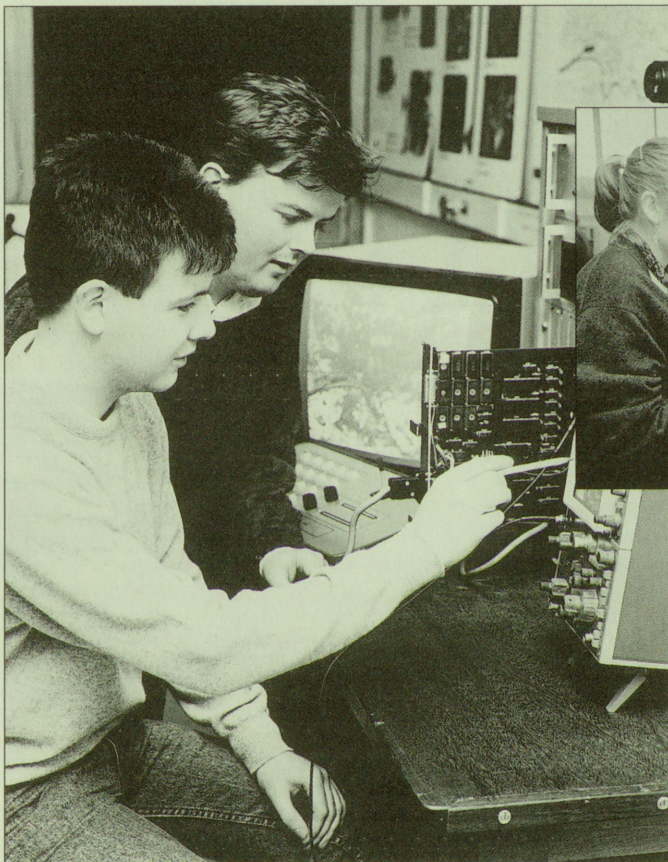
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FACULTY
OF SCIENCE



3

1. MICROBIOLOGY
PRACTICAL
2. PHYSIOLOGY
PRACTICAL
3. PHYSICS RESEARCH



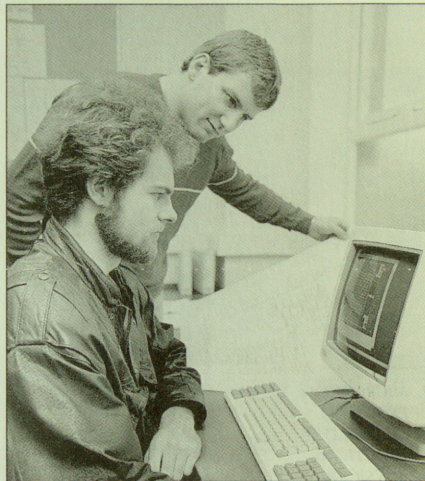
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2

1. ELECTRONIC ENGINEERING PRACTICAL
2. COMPUTER STUDIES
3. COMPUTER CHIP ANALYSIS
4. COMPUTER AIDED DESIGN



3



4

FACULTY OF TECHNOLOGY

Dean of Faculty: Professor Margaret MacKeith

MA PhD DipTP DipCons FRTP I FRGS MIEnvSc

Faculty Registrar: Alison Blackburn BA

BSc (HONS) INDUSTRIAL INFORMATION TECHNOLOGY

HIGHER NATIONAL DIPLOMA IN COMPUTER STUDIES

HIGHER NATIONAL DIPLOMA IN INFORMATION TECHNOLOGY

* BSc (HONS)/BSc QUANTITY SURVEYING

BSc BUILDING MANAGEMENT

POLYTECHNIC GRADUATE DIPLOMA IN BUILDING MANAGEMENT AND ECONOMICS

HIGHER NATIONAL DIPLOMA IN BUILDING STUDIES

BEng (HONS)/BEng ELECTRONIC ENGINEERING

HIGHER NATIONAL DIPLOMA IN ELECTRONIC ENGINEERING

HIGHER NATIONAL DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

BEng (HONS) MECHANICAL ENGINEERING

HIGHER NATIONAL DIPLOMA IN MECHANICAL AND PRODUCTION ENGINEERING

HIGHER NATIONAL DIPLOMA IN ENGINEERING DESIGN

HIGHER NATIONAL DIPLOMA IN COMPUTER AIDED ENGINEERING

POLYTECHNIC CERTIFICATE IN TECHNOLOGY FOR WOMEN

POLYTECHNIC CERTIFICATE IN TECHNOLOGY (HITECC Diploma)

* MSc/POLYTECHNIC DIPLOMA IN TECHNOLOGY

BSc (HONS)/BSc/DipHE/POLYTECHNIC ADVANCED CERTIFICATE COMBINED STUDIES OPTIONS: COMPUTING, ELECTRONICS

The Faculty of Technology encompasses all the challenging and rewarding areas of engineering, computing and construction. The work of technologists is exciting and innovative; they are analysts, designers and problem solvers. The faculty encourages both men and women to make a career in technology.

Through its four schools (Computing, Construction and Surveying, Electrical and Electronic Engineering, and Mechanical and Production Engineering) the faculty offers a wide range of full-time, sandwich, part-time and short courses, as well as options on the Combined Studies degree programme. For some courses collaborative schemes exist which allow students to study the first year at their local college and travel to the polytechnic for second and subsequent years. The faculty seeks to maximise opportunity and offers access to those without a science background via a foundation course for women only and a conversion course for men or women with arts 'A' levels (or equivalent qualifications and experience). There are also opportunities for course transfer as the academic ability or aspiration of a student changes.

The Faculty of Technology enjoys close links with industry and helps to keep its courses up-to-date with active research and consultancy.

Administrative arrangements for admissions to full-time and sandwich courses are dealt with through the Faculty Office. Staff in the office will be pleased to receive initial enquiries (Preston (0772) 201201 extn. 2113). ■

FACULTY OF
TECHNOLOGY

* Subject to CNA A approval

SCHOOL OF COMPUTING

Head of School: Ray Miles PhD MIDPM

BSc (HONS) INDUSTRIAL INFORMATION TECHNOLOGY

Course Leader: Chris Casey

This three year full-time course has been designed with industrial collaboration to provide a broad education for students capable of meeting the challenge of applying information technology (IT) to solve a wide range of problems. The course covers relevant aspects of computing, microelectronics, manufacturing systems and data communications and also develops the business and social understanding essential to the design of a successful information system. Considerable importance is attached to teamwork, and to encouraging the student's development as a confident, responsible professional.

QUALIFICATIONS FOR ENTRY

The normal entry requirement of the course is one of the following:

- GCE/GCSE passes in five subjects of which two must be at 'A' level including Mathematics to at least GCSE/'O' level.
- GCE/GCSE passes in four subjects of which three must be at 'A' level including Mathematics to at least GCSE/'O' level.
- A good standard of pass in a BTEC National Diploma or Certificate.
- A qualification deemed by the polytechnic to be equivalent to any of the above.

Note: 'A' level applicants – previous experience of computing or electronics is not necessary and applications are welcomed from candidates whose 'A' level study profile has been in the arts and humanities as well as the sciences.

The polytechnic will be pleased to consider applicants with alternative qualifications or experience.

CURRICULUM

1ST YEAR

- Computer programming, computer

technology, electronic fundamentals, industry and information technology, mathematics/programming/electronics workshops.

2ND YEAR

- System development methods, data communications and networks, digital systems, management and social implications of IT, evaluation of IT systems, mathematical modelling.

3RD YEAR

- Information management systems, industrial computing, advanced digital systems, system design and implementation, team project.

Teaching Methods: Lectures, tutorials, practicals, directed study and teamwork used as appropriate. Students will use laboratories in the School of Computing, Electrical and Electronic Engineering, Mechanical and Production Engineering and the Computer Centre.

Course duration: October to July

Assessment: The student's understanding of the various subjects taught on the course is assessed by a suitable combination of practical and written coursework, oral presentations, open-book and time constrained examinations.

Qualification: BSc (Hons) in Industrial Information Technology of the Council for National Academic Awards.

BSc (HONS)/BSc/BA (HONS)/BA/ DipHE/POLYTECHNIC ADVANCED CERTIFICATE COMBINED STUDIES INCLUDING COMPUTING

Course Leader: John Mallatratt

Computing is one of a large number of subjects available on the Combined Studies Programme which cover the fields of science, humanities, technology, law, business and social studies. The courses are organised in such a way that students may choose to specialise in one of those areas – for example a student may select a science field and undertake computing and a science subject, or undertake a more diverse field of study such as computing with

organisation studies or economics. For further details of other subjects – see page 115.

The subject of computing offers a programme of academic study concerned with information processing systems in business, industry and education. The course aims to provide an interesting and stimulating educational experience for students to enable them to pursue successful careers in computing, allowing them to tackle professionally the challenges posed by work in the field of information technology.

The course takes three years to complete if it is undertaken as a joint or minor subject, whereas if it is taken as a major subject then an additional year is spent in an industrial or business placement.

British Computer Society: The course is currently accredited at PI1 for joint and major modes.

HIGHER NATIONAL DIPLOMA IN COMPUTER STUDIES

Course Leader: John Jones

A two year full-time course leading to the award of Higher National Diploma in Computer Studies of the Business and Technician Education Council. The course is designed to provide a balanced vocational education for those interested in the design and implementation of computer based information systems in both the business and industrial sectors. The course permits students to select certain specialist options at the end of their first year to support their own personal interest within the fields of study.

QUALIFICATIONS FOR ENTRY

The normal entry requirement for the course is one of the following:

- A National Certificate or Diploma in Science, Engineering, Business Studies or Computer Studies.
- At least one subject passed at GCE Advanced Level, plus three other subjects at GCSE/'O' level. Mathematics must be studied to at least GCSE/'O' level.

- Appropriate Open College qualifications.
- Any qualifications or suitable experience deemed to be equivalent to one of the above.

The polytechnic will be pleased to consider applicants with alternative qualifications or experience.

Note: 'A' Level applicants – previous experience of computing is not necessary and applications are welcomed from candidates whose 'A' level study profile has been in the arts and humanities as well as the sciences.

CURRICULUM

1ST YEAR

- Software design, programming methods, computer systems architecture, data processing, quantitative methods, communication skills.

2ND YEAR

- Core studies comprising computer systems, graphics and man-machine interaction, information analysis and presentation, project.

In addition, a student may select a specialism from one of three options:

- Business Computing, leading to HND in Computer Studies (Business Data Processing)
- Industrial Computing, leading to HND in Computer Studies (Industrial Data Processing) or
- Software Engineering, leading to HND in Computer Studies.

Course duration: October to July

Assessment: The course is assessed in various ways each appropriate to a particular area of study. These include coursework carried out both by private study and in laboratory/tutorial periods, open-book examinations and, where appropriate, time-constrained examinations. On balance, the course is assessed approximately 70% by coursework and 30% by examination.

Qualification: Either HND Computer Studies (Business Data Processing) or HND Computer Studies (Industrial Data Processing) or HND Computer Studies depending on the second year option choice.

British Computer Society: The course carries Part I exemption from The British Computer Society membership requirements.

FACULTY OF
TECHNOLOGY

HIGHER NATIONAL DIPLOMA IN INFORMATION TECHNOLOGY

Course Leader: Dave Nash

A two year full-time course leading to the award of the Higher National Diploma in Information Technology of the Business and Technician Education Council. The course is designed to provide a balanced education in computing and electronics for those intending to follow a career in the application of information technology in industry or business. The course provides knowledge, skills and experience in computing, data communications and electronics in order that these technologies can be applied to the construction of effective information systems.

QUALIFICATIONS FOR ENTRY

The normal entry requirement for the course is one of the following:

- A National Certificate or Diploma in Science, Engineering or Computer Studies.
- At least one subject in a science-related area passed at GCE Advanced Level, plus three other subjects at GCSE/'O' level. Mathematics must be studied to at least GCSE/'O' level.
- Appropriate Open College qualifications.
- A qualification deemed by the polytechnic to be equivalent to any of the above.

The polytechnic will be pleased to consider applicants with alternative experience or qualifications.

CURRICULUM

1ST YEAR

- Computer systems architecture, programming in Pascal and assembly language, electronics, systems programming and organisation studies.

2ND YEAR

- Microprocessor development systems, data communications, systems development methods, computer graphics, man-machine interaction, quantitative modelling and project work.

Course duration: October to July

Assessment: The course is assessed in various

ways each appropriate to a particular area of study. These include coursework carried out both by private study and in laboratory/tutorial periods, open-book examinations and, where appropriate, time-constrained examinations. On balance, the course is assessed approximately 70% by coursework and 30% by examination.

Qualification: Higher National Diploma in Information Technology of the Business and Technician Education Council.

British Computer Society: The course carries Part I exemption from the British Computer Society membership requirements.

TECHNOLOGICAL COLLABORATION

The school has laboratories which are used for specialist software and hardware developments. In addition, a wide range of computing facilities exist within the polytechnic and it is a policy of the institution to make these available to business and industry in the region. The polytechnic's Commercial and International Unit can advise on the terms and conditions under which organisations may avail themselves of a wide range of services to business and industry.

SHORT COURSES FOR INDUSTRY

The school has an extensive short courses programme whereby specialist courses are designed and run for the benefit of in-company training, either on site or in the polytechnic.

Further details: Further information on all the school's courses and services may be obtained from:

The School of Computing
Lancashire Polytechnic
Preston
PR1 2TQ

Tel: Preston (0772) 201201 Ext. 2367

The school welcomes applications from both men and women and from those with non-standard entry qualifications or relevant experience. ■

SCHOOL OF CONSTRUCTION AND SURVEYING

Head of School: Ron Smith BA ARICS

* BSc (HONS)/BSc QUANTITY SURVEYING

Course Leader: to be appointed

A four year sandwich degree course leading to the award of a Bachelor of Science in Quantity Surveying. In addition the course will prepare students for full professional membership of the Royal Institution of Chartered Surveyors, Quantity Surveying Division.

The course is designed to provide an interesting and stimulating programme of undergraduate study, in the disciplines relevant to quantity surveying, and enable students to continue their intellectual development to higher degrees and/or professional membership.

The three main study programmes are, economic studies, technological studies and legal studies, which together form the core of quantity surveying.

The first stage of the course introduces students to the concepts of measurement, value, conflict, and modelling, which are seen to be central issues in quantity surveying, and manifest themselves in widely varying forms within each study area. During the third year of the course students will be placed in professional or contracting offices to supplement their intellectual development, and prepare them for the final year of the course. In their final year students, will be involved in project simulation studies, which will demand full use of their practical and intellectual experiences to complete their assignments.

QUALIFICATIONS FOR ENTRY

The normal entry requirement for the course is one of the following:

■ A General Certificate of Education/GCSE with passes in five subjects, including two subjects at Advanced Level, and including passes at GCSE/

'O' level or above in Mathematics and English Language.

■ An appropriate BTEC National Diploma or Certificate in the field of science or technology which includes passes with merit in three level III units, and a GCSE/'O' level pass in English Language.

■ A qualification which is deemed by the polytechnic to be equivalent to one of those described above.

Entry to the course with exemptions: Students with relevant qualifications and/or experience may be offered exemptions from part of the course, and admitted at a stage deemed to be appropriate by the polytechnic.

CURRICULUM

1ST YEAR

■ Foundation block, project documentation, construction techniques, construction engineering, economics, law and information processing.

2ND YEAR

■ Project documentation, construction techniques, construction engineering, law, economics, resource pricing, resource planning, financial planning, project cost appraisal, expenditure planning and control, project planning and design, project value appraisal.

3RD YEAR

■ Industrial experience.

4TH YEAR

■ Project cost appraisal, construction law, expenditure planning and control, project value appraisal, project simulation studies.

Assessment: Examinations are held at the end of each year, and are internally set and externally assessed. Coursework contributes to the assessment at each year of the course.

FACULTY OF
TECHNOLOGY

* Note: At the time of preparation of this prospectus the course was subject to approval by the Department of Education and Science and CNAAs.

BSc BUILDING MANAGEMENT

Course Leader: Dr Andrew Platten

A four year sandwich course (three years full-time study with year three spent in industry) leading to the award of the degree of Bachelor of Science in Building Management. The course is subject to Honours validation in session 1989/90.

The course involves the development of those skills relevant to problem identification, evaluation and solution in the fields of project management and construction technology. This process will involve a broad and rigorous programme of studies providing a suitable basis in the fundamentals, principles and applications of construction technology, management and economics and those legal issues relevant to the building industry, whilst encouraging students to adopt a positive and enthusiastic approach to their studies.

Ultimately the course intends to prepare students for employment in higher managerial positions of building organisations. They will be prepared for present and future vocational problems likely to be encountered in design, production and subsequent use and maintenance of buildings.

QUALIFICATIONS FOR ENTRY

The normal minimum qualifications for entry are one of the following:

- A General Certificate of Education/GCSE with passes in five subjects, including two subjects at Advanced Level and including passes at GCSE/ 'O' level or above in Mathematics and a subject requiring facility in written English.
- An appropriate BTEC National Certificate or Diploma which includes passes with merit at level III in three units, and a pass in Mathematics III.
- Other qualifications deemed by the polytechnic to be equivalent to the above.

CURRICULUM

The course content incorporates three main course components forming the curriculum to the course: Technology, Management/Economics and Legal Studies.

1ST YEAR

Technology – Construction studies, materials science, built environment, building services, information technology and mathematics.

Management/Economics – Principles of construction management, economic project documentation.

Legal Studies – Legal environment, development law.

2ND YEAR

Technology – Structures, construction studies, built environment, building services systems, materials technology, information technology.

Management/Economics – Organisation development, management and resource pricing, financial planning, project documentation.

Legal Studies – Construction law.

FINAL YEAR

Technology/Management Appraisal – Performance studies, building maintenance and appraisal.

Management/Economics – Project management, project analysis and appraisal operations research.

Legal Studies – Construction law

Dissertation – (research project)

Project Simulation Exercise – (large scale multi-disciplinary design exercise working with undergraduate building surveying, quantity surveying and building services engineering students).

Additionally, students will have the opportunity to take part in cross-subject modelling and group presentation exercises. Years 1 and 2 also include a residential workshop week in which students will undertake the analysis of a building project.

RECOGNITION OF PROFESSIONAL BODIES

Exemption is currently being sought from the membership examinations to both the CIOB and the RICS.

HIGHER NATIONAL DIPLOMA IN BUILDING STUDIES

Course Leader: David Evans

A three-year sandwich course or a two-year full-time course which provides education and training for careers with professional status in Building Management, Estimating, Building Surveying and Quantity Surveying. An industrial training period of 52 weeks duration (including the summer vacation) may be undertaken between the first and final years of the course in order to provide practical experience of site and/or office work. The first and final years consist of full-time study at the polytechnic. Holders of the diploma will be eligible for membership of the Society of Surveying Technicians and Society of Architectural and Associated Technicians and may apply for exemption from the examinations of the following institutions: Member Examination Part I of the Chartered Institute of Building and the Part One Examination of the Royal Institution of Chartered Surveyors (Quantity Surveying and Building Surveying Divisions). Substantial exemptions from the examinations of the Construction Surveyors Institute will also be afforded.

Students may enter the course direct from school or may have obtained some industrial experience, or alternatively may be in employment and receive support from their firm or authority. The latter students will be referred to as industry-based.

In addition to suitable academic qualifications, students will be selected on the basis of a confidential report and suitability at an interview by the course leader at the polytechnic. Prospective students are advised to apply early as an offer of a place on the course will be made, where appropriate, at interview.

QUALIFICATIONS FOR ENTRY

Students admitted to the course must normally hold one of the following qualifications:

- The Ordinary National Diploma in Building or Civil Engineering.
- The Ordinary National Certificate in Construction or in Building.

■ Not less than four passes in the General Certificate of Education/GCSE (Grade A, B or C or CSE grade 1) of which one must be at Advanced level. The passes at GCSE/'O' level must include Mathematics, a science and a subject requiring a facility in the use of written English.

■ BTEC Certificate in Building Studies, including Mathematics at level II.

■ A BTEC Diploma in Building Studies, Civil Engineering Studies or Construction and Land Use.

■ Appropriate Open College qualifications.

Exceptional entry: Applicants with alternative qualifications to those stated above, may be considered for entry to the course, eg students possessing overseas qualifications.

Modification of the entry qualifications may be made in the case of mature students taking into account individual experience and personal and professional development.

FACULTY OF
TECHNOLOGY

CURRICULUM

1ST YEAR

Tutor: Christopher Hill

Subjects according to programme of study from: Building technology, measurement of building works, site surveying, mathematics, computing, statistics, structural mechanics, organisation and procedures, building regulations.

Course duration: September to June (33 weeks)

Assessment: Internal.

Industrial Training Tutor: John Angell

FINAL YEAR

Tutor: Graham Taylor

Subjects according to programme of study from: Building technology and legislation, measurement of building work, tenders and estimating, environmental science, site management (production), site management (personnel), building services and equipment, building law and economics, design technology, integrated studies.

Course duration: September to June (33 weeks)

Assessment: Internally set examinations, externally moderated.

Qualification: Business and Technician Education Council Higher National Diploma in Building Studies.

POLYTECHNIC GRADUATE DIPLOMA IN BUILDING MANAGEMENT AND ECONOMICS

Course Leader: Andrew Turner

The course is a one year full-time course for those who wish to qualify for Membership of the Chartered Institute of Building by obtaining exemption from the grouped subjects of the Part II examinations. Those taking the Quantity Surveying option gain exemption from the Royal Institution of Chartered Surveyors Part II examination.

Financial assistance is currently offered through grants from Local Education Authorities and the Training Services Agency in addition to industrial sponsorship.

Early application is advisable as individual interviews are held throughout the year at the polytechnic. Places on the course will be offered on the basis of the interview and the confidential reports normally requested from the past college and/or employers.

QUALIFICATIONS FOR ENTRY

Entrants to the course must normally hold one of the following qualifications:

- Higher National Diploma in Building or HD recognised by CIOB for exemption from final member examination Part I.
- First degree of universities in United Kingdom (including Republic of Ireland) or CNA degree in Architecture, Estate Management or Civil Engineering.
- The Chartered Institute of Building Final Examination Part I (or approved exempting award).

CURRICULUM

Compulsory subjects: Technology, organisation, production management, building economics and finance, contract administration.

Optional subjects: Project documentation and pricing; a project detailing the total process

within which buildings are conceived, designed, constructed and used.

Course duration: October to June (31 weeks)

Assessment: Internal, with one external examination and moderated project for full exemption.

Qualification: Polytechnic Graduate Diploma in Building Management and Economics. Exemption is possible from all the CIOB Member Part II examinations with success in the one external examination and project. Full exemption from the RICS Part II examination is granted with the internal Diploma (QS)

CAREERS IN CONSTRUCTION

Courses in the School of Construction and Surveying offer attractive career opportunities for both men and women.

The industry, which is one of the largest in the country, continually requires men and women of character and determination who are willing to accept responsibility and to train for technical and executive positions. There are many and varied occupations followed by members of the construction team and demand exists for project managers, quantity surveyors, estimators, planners, site engineers and within administrative areas. Construction work is interesting, always rewarding and varied to a greater degree than found in other technical industries. There are ample opportunities for men and women possessing the right qualities and ability to reach executive positions. There is a wide range of construction work – industrial and commercial, ecclesiastical and civic, residential, industrialised and pre-fabricated buildings, maintenance and restoration work. Within industry there are many sizes of firms each specialising in one or more of the areas listed above.

Note: The school is pleased to consider applicants to its courses who have alternative qualifications and/or experience to those listed. ■

SCHOOL OF ELECTRICAL AND ELECTRONIC ENGINEERING

Head of School: Professor Norman Burrow
BSc(Eng) PhD AKC CEng FIEE FIERE

BEng (HONS)/BEng ELECTRONIC ENGINEERING

Course Leader: Tom Izatt
Admissions Tutors: Dr Henry Senior and
Gerry Collins

A four year 'thick' sandwich course leading to the award of a Bachelor of Engineering degree with honours or Bachelor of Engineering degree in Electronic Engineering. Students wishing to be considered for an honours degree award will normally be expected to achieve a higher level of performance than those students aiming for a degree award. In the fourth year, honours degree students will undertake a more demanding programme of studies than degree students.

The course is accredited for stage 1 (academic requirement) of the Engineering Council registration procedure. This means that successful honours students may become Chartered Engineers (CEng) after satisfying the remaining stages of registration, namely stage 2 (training requirements) and stage 3 (responsible experience requirement).

QUALIFICATIONS FOR ENTRY

Students must normally be at least 18 years of age at the commencement of the course and possess one of the following sets of qualifications:

■ A General Certificate of Education/GCSE with passes in five subjects of which two must be at 'A' level in one of the following subject combinations:

- 1 Mathematics and Physics.
- 2 Mathematics and Chemistry (having studied Physics up to 'A' level).
- 3 Mathematics (pure) and Mathematics (applied) – having studied Physics up to 'A' level.

■ A General Certificate of Education/GCSE in four subjects of which three must be at 'A' level, including the subjects of Mathematics and Physics.

■ A good standard pass in the Ordinary National Diploma in Technology (Engineering) or Ordinary National Certificate.

■ A Business Technician Education Council certificate or diploma at merit standard with three Level III units including mathematics and electrical principles.

■ Open College qualifications: four Stage A units and two Stage B units. The Stage B units to comprise modules 1 and 2 of the mathematics units and module 1 basic physics unit with either module 2, physics II or module 3, engineering science, of the physical sciences unit.

The polytechnic will be pleased to consider applicants with alternative qualifications or experience.

FACULTY OF
TECHNOLOGY

CURRICULUM

1ST YEAR (BEng Hons and BEng)

Tutor: Roger Preston

■ This stage of the course includes approximately 26 weeks of academic study integrated with seven weeks of engineering practice. The latter incorporates the engineering applications (EA1) element of the course. The academic curriculum includes: mathematics, computer programming and applications, electrical principles, logic and electronics, engineering physics, the engineer in industry.

Course duration: September to June (33 weeks)

Assessment: Internally set examinations, externally assessed.

2ND YEAR (BEng Hons and BEng)

Tutor: Norman Slater

■ Mathematics, computer programming and applications, electrical principles, electronic engineering, digital systems, signal analysis and processing, instrumentation and control, industrial studies, design and case studies.

Course duration: September to June (34 weeks)

Assessment: Internally set examinations, externally assessed.

3RD YEAR (Industrial Experience)

Tutors: Dr Iori Thomas and Phil Holifield

■ Students undertake a period of industrial experience which is a valuable part of the course. Tutors will assist students in finding suitable places in industry.

Duration: July to September (10-15 months)

FINAL YEAR (BEng Hons and BEng)

Tutor: Gerry Collins

Honours: Electronic engineering, digital signal processing, digital systems, control systems, project, laboratory and design studies, engineering management and business studies; either communication engineering or power electronics.

Degree: Electronic engineering, digital systems, instrumentation, project, laboratory and design studies, engineering management and business studies; either communication engineering or power electronics.

Course duration: September to June (33 weeks)

Assessment: Internally set examinations, externally assessed.

Qualification: Successful completion of the course results in the award of either a Bachelor of Engineering degree with honours in Electronic Engineering or a Bachelor of Engineering degree in Electronic Engineering.

HIGHER NATIONAL DIPLOMA IN ELECTRONIC ENGINEERING

HIGHER NATIONAL DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

Course Leader: Dr David Heys

Admissions Tutors: Dr Henry Senior and Gerry Collins

A two year full-time course based on a unit structure and incorporating a programme

of study in electronic and electrical engineering leading to the award of the BTEC Higher National Diploma in Electronic Engineering or in Electrical and Electronic Engineering. Engineering applications, providing practical experience, is fully integrated with the academic studies in each year of the course.

The studies undertaken are relevant to modern industrial developments in microelectronics, and in the final year, the student has the opportunity of studying a range of subjects, including electronics, power electronics, digital systems and telecommunications. Microprocessor systems and computing feature strongly in the curriculum.

In July 1987, the HND course was one of the first in the country to be accredited for stage 1 (academic requirement) of the Engineering Council Registration Procedure. This means that after satisfying stage 2 (training requirement) and stage 3 (responsible experience requirement) then successful HND students can become Incorporated Engineers (IEng).

QUALIFICATIONS FOR ENTRY

- Completion of the Advanced level courses for the General Certificate of Education in Mathematics and Physics or Engineering Science with a pass in at least one of these three subjects, together with a pass in each of three additional subjects at GCSE/'O' level, or
- A BTEC National Certificate/Diploma in Electrical and Electronic Engineering or in Electronics, containing mathematics, electrical and electronic principles and one other electrical subject normally all passed at level III, or
- An Ordinary National Diploma in Technology (Engineering), or
- Appropriate Open College qualifications, or
- Any other equivalent qualification.

Further information on BTEC courses is given on page 17.

CURRICULUM

1ST YEAR

Tutors: Derek Cooke and Bert Duckworth

- Mathematics, electronics, digital electronics, circuit theory microelectronics, electrical machines, engineering physics, engineering applications.

Course duration: September to July (35 weeks)

Assessment: Internally set examinations, with external moderation, together with in-course assessments associated with each unit studied.

2ND YEAR

Tutors: Dr Iori Thomas and Derek Cooke

■ Electronics, power electronics, communication systems, microprocessor based systems, control engineering, mathematics, project, engineering applications.

Course duration: September to July (35 weeks)

Assessment: Internally set examinations, with external moderation, together with in-course assessments associated with each unit studied.

Qualification: BTEC Higher National Diploma in Electronic Engineering or Higher National Diploma in Electrical and Electronic Engineering.

THE SCHOOL OF ELECTRICAL AND ELECTRONIC ENGINEERING

The School of Electrical and Electronic Engineering aims to provide a friendly atmosphere designed to encourage students to fulfil their potential and enjoy their time at the polytechnic.

The school is housed in its own building, specially adapted to meet the present and future demands of electronic engineers. The school is actively involved in research projects on digital image processing, speech, recognition systems, semiconductor devices and computer-aided design. Development work in many other areas of electronic engineering, for example robotics, speech synthesis and computer aided testing, is being carried out. These activities provide for a stimulating environment from which final year projects and seminars are developed.

OVERSEAS STUDY

Students are encouraged to spend some time overseas in order to broaden their experience. The polytechnic arranges the placement and sometimes financial assistance is possible. The polytechnic provides courses in European languages to prepare students for placements.

CAREERS IN ELECTRICAL AND ELECTRONIC ENGINEERING

The electrical and electronic engineering industry encompasses modern developments in microelectronics, microprocessors, computers, communications and automation.

Graduates and diplomates in electrical and electronic engineering are sought after by a wide range of employers, extending over the relatively new areas of microprocessor/electronic research, design, development and applications, to the more traditional areas of electrical and electronic engineering design and manufacture. There is currently a national shortage of both professional and technician electrical and electronic engineers, particularly in the manufacturing sectors of industry.

There are consequently opportunities for challenging and rewarding careers both in this country and abroad for graduates and diplomates in electrical and electronic engineering. ■

FACULTY OF
TECHNOLOGY

SCHOOL OF MECHANICAL AND PRODUCTION ENGINEERING

Head of School: John Tirrell BSc(Eng) CEng
MIMechE

BEng (HONS) MECHANICAL ENGINEERING

Course Leader: Norman Allen

FACULTY OF
TECHNOLOGY

This course is accredited by the Institution of Mechanical Engineers and is part of their Monitored Professional Development Scheme.

The BEng Honours in Mechanical Engineering course is of four years' duration, including a total of 36 weeks' industrial experience taken as a block from April of year 2 to December of year 3. The course is supported by programmes of laboratory work, seminars, and projects, to complement lecture material.

QUALIFICATIONS FOR ENTRY

Normally students must hold either:

- Two 'A' levels: Mathematics with mechanics and one other subject appropriate to engineering, or Mathematics with mechanics and two A/S levels, one of which must be appropriate to engineering. If pure mathematics has been studied to 'A' level, the other subject should be physics or engineering science. Passes at grade C and above in three other subjects at GCSE/'O' level are also required. A pass in English language is not essential, but students must have a proven ability in English language.

- OND Technology with 60% or above in Mathematics and Technology.

- BTEC ONC or OND in Engineering with passes at level III with merit in Mathematics and Mechanical Science (A5) or Aerospace Science (Mechanical, A9) or Engineering Science (A1) or Electrical Principles and one other suitable level III subject.

- Appropriate Open College qualifications.

Admissions tutors are also happy to consider applicants who have alternative qualifications and experience.

Entry at other stages of the course: Students admitted to the BTEC HND courses in Computer Aided Engineering, Engineering Design or Mechanical and Production engineering and who show good progress in the first year may be offered the opportunity of joining part II of the degree course.

CURRICULUM

1ST YEAR

Tutor: Rob Paine

- Mathematics, computing, experimental methods, mechanical science, electrical science, materials science, drawing and related studies. Engineering applications I is also included, normally conducted in the polytechnic's workshops and laboratories, and this enhances the industrial content of the course.

Course duration: September to June (33 weeks)

2ND YEAR

Tutor: Bob Bryan

- Mathematics, industrial organisation, design, thermomechanics of fluids, stress and structures, materials, mechanics, production processes, and electrical engineering.

Course duration: September to March (22 weeks)

INDUSTRIAL EXPERIENCE

- Industrial training tutors will assist students in finding suitable placement in industry.

Duration: April to December (36 weeks)

3RD YEAR

Tutor: John Durnan

- Management of production, employment, thermomechanics of fluids, dynamics, and control, mechanics of solids, design and mathematics.

Course duration: January to June (22 weeks)

4TH YEAR

Tutor: Dr Martin Hodskinson

■ Dynamics and control, mechanics of solids, thermomechanics of fluids, production, tribology, technology in society and design.

Course duration: September to June (34 weeks)

Qualifications: On successful completion of the course, students are awarded the degree of Bachelor of Engineering with Honours in Mechanical Engineering and are eligible for Graduate Membership of the Institution of Mechanical Engineers.

HIGHER NATIONAL DIPLOMA AWARDS (TWO YEARS FULL-TIME OR THREE-YEAR SANDWICH) HIGHER NATIONAL DIPLOMA IN ENGINEERING

Course Leader: Geoff Podmore

On entry to the course each student discusses his or her educational background and previous experience with the year tutor and an appropriate programme of balancing studies devised. All students attain a broad base of engineering knowledge by the end of the first year, from which they may proceed to the final year of a Higher National Diploma specialising in:

- COMPUTER AIDED ENGINEERING
- ENGINEERING DESIGN
- MECHANICAL AND PRODUCTION ENGINEERING

The final year may be studied directly following the first year to form a two year full-time course, or after a year of industrial experience to provide a three year sandwich course.

QUALIFICATIONS FOR ENTRY

The normal entry requirements will be as follows:

■ Five GCE/GCSE passes, including at least one at 'A' level; Mathematics must have been passed at GCSE/'O' level and studied to 'A' level, and an additional science or technology subject must

also have been studied to 'A' level, or

■ An appropriate BTEC Certificate or Diploma, or

■ Qualifications deemed to be equivalent to the normal entry requirements.

The course leader is also pleased to consider applicants with alternative experience or qualifications.

CURRICULUM

COMMON 1ST YEAR

Tutor: John Greenhow

Semester 1: All students undertake a programme of balancing studies including mathematics, mechanical science, materials, drawing and design, manufacturing technology, computing and microprocessors.

Semester 2: A programme of studies will include: mathematics, mechanical science, manufacturing technology, engineering drawing and design, control of manufacture, introduction to numerical control, computing assignments, thermomechanics of fluids, materials and practical project work.

Course duration: September to July (35 weeks)

FINAL YEAR

Tutor: Mahesh Patel

Common Core: Management and communication studies, economic and financial studies, mechanical science, computer aided engineering, related assignments, related project.

In addition students will study a range of subjects of their choice from one of the following specialist areas:

Computer Aided Engineering

Microcomputer principles, software engineering, NC technology, engineering design, production planning and control, quality assurance, mathematics, computer aided design, computer aided manufacture, computer aided manufacturing systems, robotics.

Engineering design

Engineering design, design for manufacture, mathematics, materials, thermomechanics of fluids, exploration of form, jig and tool design, computer aided design, design project, stress and structures, dynamics and industrial design.

FACULTY OF
TECHNOLOGY

Mechanical and Production Engineering
Instrumentation and control, materials,
production planning and control, engineering
design, microcomputer principles, mathematics,
quality assurance, thermomechanics of fluids,
NC technology, stress and structures, dynamics,
computer aided manufacture, fluid power
control engineering, robotics, and computer
aided manufacturing systems.

Course duration: September-July (35 weeks)

Assessment: Internal assessment is a
combination of continuous assessment methods
and formal examinations to suit each unit.

ENGINEERING APPLICATIONS

The school fully endorses the philosophy of
engineering applications, the aim of which is that
the student develops an appreciation of the
totality of engineering through real life problems
involving manufacture and the use of materials
and the analysis and synthesis of practical
situations. This philosophy is not achieved
through individual units but permeates
throughout the programme as a whole.

HITECC DIPLOMA IN TECHNOLOGY (CONVERSION COURSE)

Course Leader: Rob Paine

This is a one-year full-time foundation
course designed for those people with non-
science 'A' levels who would like to pursue a
career in engineering and technology.

COURSE CONTENT

The course contains a core of mathematics and
mechanical and electrical science. In addition
students will take investigative studies, which
will allow them to learn flexibly and creatively the
principles involved in technology through
investigation and experience. The course will
equip students with IT skills and allow them to
develop an understanding of the role of
technology in society.

Assessment: Assessment will be through a
mixture of examinations and assignments.

QUALIFICATIONS FOR ENTRY

Entrants will normally be qualified to GCE 'A'
level in non-science subjects, although mature
students may be able to offer work experience in
place of 'A' levels. Some evidence of
mathematical achievement or potential (such as
GCSE/'O' level Mathematics) is required.

QUALIFICATIONS

Students will register from the outset on one of
the faculty's engineering degrees, and on
successful completion of the course will be
awarded the HITECC Diploma in Technology.
In addition he/she will be qualified to proceed
onto the first year of the BEng (Hons)
Mechanical Engineering or the BEng (Hons)
Electronic Engineering degree. Mechanisms also
exist for successful students to transfer to other
appropriate courses within the polytechnic, on
completion of the foundation year.

Applications: Applicants should complete a
standard polytechnic application form obtainable
from the Educational Liaison Office, Lancashire
Polytechnic, Preston, PR1 2TQ.
Tel: (0772) 201201, ext. 2626.

In addition, the course administrator would
be pleased to answer any queries or provide
further information. Please contact: Frances
Dewar, Course Administrator (HITECC),
School of Mechanical and Production
Engineering, Lancashire Polytechnic, Preston,
PR1 2TQ. Tel: (0772) 201201, ext. 2118.

POLYTECHNIC CERTIFICATE IN TECHNOLOGY (WOMEN ONLY)

Course Leader: Rob Paine

This one-year full-time course provides a
chance for women of any age, without
traditional entry qualifications, to gain access to
technological skills. Over recent years it has
increasingly been recognised that women are
under-represented in the field of technology.
One reason for this is that in school, girls have
tended to make choices which block future entry
into technology, a fact which they may not realise
until too late. Not only does this mean that
women then miss out on exciting, challenging

and well paid careers but industry itself is potentially less effective because it fails to attract them.

QUALIFICATIONS FOR ENTRY

The course is designed for women who may have no background in technical subjects. No formal academic qualifications are required for entry although evidence of basic mathematical ability is looked for. This will take the form of a numeracy test, although GCSE/'O' level mathematics or equivalent is normally acceptable in lieu.

COURSE CONTENT

The course contains a core of mathematics and mechanical and electrical science. However, a key aspect of the course is investigative studies, which allows students to explore and understand the principles involved in technology through investigation and experience. The course will equip students with some computing skills and enable them to develop an understanding of the role of technology in society.

Assessment: Progress will be assessed through a mixture of assignments and examinations throughout the course, giving students valuable feedback as to their understanding of the course.

Attendance: September/October to July each year, 10.00 am to 3.00 pm, Monday to Friday, although students will also be expected to do some further work at home.

QUALIFICATIONS

On successful completion of the course a student will be awarded the Polytechnic Certificate in Technology. This will qualify her for entry to courses at Higher National Certificate (HNC), Higher National Diploma (HND) or degree level, depending upon her individual achievements and aspirations. Alternatively students may wish to seek employment as technicians in certain sections of industry. Advice will be offered on the options available.

Grants: All participants are eligible for a non-means tested trainee allowance from the European Social Fund. Subsequently, on a degree or diploma course students may be eligible for grant aid from the local education authority.

Applications: Application forms and further information are obtainable from Frances Dewar, Course Administrator (Certificate in Technology), School of Mechanical and Production Engineering, Lancashire Polytechnic, Preston PR1 2TQ.
Tel: (0772) 201201, ext. 2118. Frances will be pleased to answer any queries you may have about the course.

*MSc/POLYTECHNIC DIPLOMA IN TECHNOLOGY

This is a one-year full-time postgraduate course. For further information please contact the Faculty Office, Tel: (0772) 201201, ext. 2113. ■

* Subject to approval

FACULTY OF
TECHNOLOGY

FACULTY
OF SOCIAL
STUDIES



FACULTY OF SOCIAL STUDIES

Dean of Faculty: Professor Stanley Henig MA
Faculty Registrar: Pauline Cooke BA

BA (HONS) APPLIED SOCIAL STUDIES

POLYTECHNIC DIPLOMA
IN APPLIED SOCIAL STUDIES
(POSTGRADUATE) (CQSW)

POLYTECHNIC DIPLOMA IN
SOCIAL WORK (CQSW)

DIPLOMA IN COMMUNITY
HEALTH STUDIES

HEALTH VISITOR'S CERTIFICATE

NATIONAL CERTIFICATE IN
DISTRICT NURSING (RGN)

POLYTECHNIC CERTIFICATE IN SOCIAL
AND ADMINISTRATIVE STUDIES

HIGHER NATIONAL DIPLOMA IN
PUBLIC ADMINISTRATION

BA (HONS)/BA/DipHE/POLYTECHNIC
ADVANCED CERTIFICATE COMBINED
STUDIES OPTIONS: EDUCATION
STUDIES, HEALTH STUDIES, POLITICS

*BA (HONS) EUROPEAN STUDIES

* Subject to approval

The faculty is comprised of three schools:
The School of Community Studies
The School of Health Studies
The School of Public Policy and Administration

These schools offer courses with academic and professional qualifications in social work, community health, social policy and public sector management.

The entire Faculty of Social Studies is located in Livesey House. This is a four storey block close to the main campus, in which is to be found general and specially equipped lecture and seminar rooms, study and computer rooms, a coffee-bar, and academic and secretarial staffrooms. The working of each school is directed by a Head of School, whilst the Dean supervises the work of the faculty. The Faculty Office and the offices supporting the work of the schools are all located in Livesey House. ■

FACULTY
OF SOCIAL
STUDIES

SCHOOL OF COMMUNITY STUDIES

Head of School: Dr Chris Jones BA CQSW PhD

The School of Community Studies is concerned with providing education and training opportunities which contribute to meeting and alleviating social and community needs.

In pursuit of these objectives the school currently runs a full programme of social work courses. In addition the school is responsible for a one year access course directed primarily at ethnic minority students.

The staff in the school come from a variety of disciplines and professional backgrounds including sociology, social policy and social work. This combination of staff resources provides the school with the opportunity to develop and sustain a portfolio of courses to meet the growing levels of social stress in society, and the changing training needs of social welfare agencies and occupations. The school is committed to the overall objectives of the polytechnic to provide appropriate and relevant educational and training opportunities for the people of the north-west, especially those, who for whatever reason, have traditionally experienced difficulty in gaining access to higher education.

FACULTY
OF SOCIAL
STUDIES

POLYTECHNIC DIPLOMA IN APPLIED SOCIAL STUDIES (POSTGRADUATE) (CQSW)

Course Leaders: Brian Gray, Paul Nolan

A one year full-time course leading to the Diploma in Applied Social Studies awarded by the polytechnic and to the Certificate of Qualification in Social Work awarded by the Central Council for Education and Training in Social Work.

QUALIFICATIONS FOR ENTRY

Applicants must be at least 21 years of age and normally possess a relevant degree with practice experience preferably gained in post.

APPLICATION PROCEDURE

The course begins in October each year. Selection will be by interview and references will be required from academic tutors and a field work supervisor. Information and application forms are obtainable from The Clearing House for CQSW Courses, Myson House, Railway Terrace, Rugby CV21 3HT.

CURRICULUM

Theory and practice of social work covering a range of methods and client groups, social and developmental psychology, sociology, social administration and law.

The practice component of the course is arranged on a concurrent basis with the theoretical teaching, students spending two days in the polytechnic and three days a week in placement until the final part of the course which is a block placement. The first placement runs for the first and second terms, and the second is a block placement ending in August. Practice learning opportunities are arranged by a group of social work tutors known as the practice learning group. Students complete a student learning profile which is channelled via this group. Practice learning opportunities are allocated by this group.

Course duration: September to September

Assessment: Assessment will be made by periodic evaluation of written work and the practice placements.

POLYTECHNIC DIPLOMA IN SOCIAL WORK (CQSW)

Course Leader: Diane Gowland, Helen Campion

A two year full-time course leading to the Diploma in Social Work awarded by the polytechnic and the Certificate of Qualification in Social Work awarded by the Central Council for Education and Training in Social Work. The aim of the course is to educate and train candidates to

become social workers capable of working in a number of social work agencies. The ethos of the course focuses upon issues of inequality as they relate to social work practice in contemporary Britain. The course also adopts a student centred approach to learning.

QUALIFICATIONS FOR ENTRY

Applicants must be age 20 or over at the start of the course. They must have the personal qualities necessary for social work and the academic ability to benefit from the course. Candidates under 25 will normally be required to hold five GCSE/'O' level passes or preferably two 'A' level passes; candidates over 25 must show evidence of ability to cope with the academic demands of the course. Evidence of recent educational experience is required. No-one is admitted to the course without an interview.

APPLICATION PROCEDURE

Information and application forms are obtainable from the Clearing House for Social Work Courses, 4th Floor, Myson House, Railway Terrace, Rugby, Warwicks CV12 3HT. Direct applications to the polytechnic can also be made.

CURRICULUM

In the first year subjects taught will reflect two strands pertinent to social work education. Lectures and seminars will explore the social and political context of social work. Students will explore the tasks and roles of social workers across a number of client groups in order to develop practice competence. Subjects integral to social work teaching include sociology, welfare rights, psychology, law and social policy. Skills and methods teaching play a prominent part in the first year teaching.

In the second year opportunity is available for specialisation through a series of options designed to advance and consolidate knowledge pertinent to social work practice. Teaching will include lectures and seminars in government and politics, deviance and social control, social work settings, philosophy and values, and skills and methods of social work.

Group tutorials are an integral part of student support throughout the two years of the course. There are two placements of 80 and 88 days respectively, in year one and year two.

Assessment: Assessment methods vary across disciplines, to include both group and individual assessment, with the intention of providing students with a range of learning opportunities. Emphasis will be given to: integration of teaching, application of theory to practice in the context of contemporary society, collective learning and sharing resources. 6 pieces of written work are required during year 1 and 4 pieces of written work are required during year 2. Placements are also part of assessment and both need to be passed in order to successfully complete the course.

We expect students to respect the teachings of race, gender, class and welfare rights appropriately in all aspects of their course work and practice.

POLYTECHNIC CERTIFICATE IN SOCIAL AND ADMINISTRATIVE STUDIES

Course Leader: Vicki Merchant
Course Tutor: Alfred Zack-Williams

FACULTY
OF SOCIAL
STUDIES

This is a full-time access course which will prepare students for entry to further courses of education and training in the areas of social studies, social work and social administration (such as the BA Applied Social Studies and the CQSW courses in the Faculty of Social Studies and related subjects on the Combined Studies credit accumulation programme). The course has been designed with particular reference to the needs of ethnic minority communities in Lancashire and to provide a route back into education for those who may have had difficulties in the past.

The polytechnic access course forms part of a Lancashire scheme of access studies supported by grants from the Lancashire Education Authority. At present the scheme is run jointly with WR Tuson College which offers an access course leading to teacher training at Edge Hill College of Higher Education.

ENTRY REQUIREMENTS

Students must normally be 20 years of age at the beginning of the course. They must have a serious interest in returning to study and in the

broad subject area of social studies, including social work and social administration. There are no formal requirements in terms of previous academic qualifications.

Selection procedures: Applicants will be interviewed by staff associated with the polytechnic course.

COURSE OF STUDY

The course consists of lectures, seminars and practical sessions in the following:

- British social welfare, theory and practice
- Race in British Society
- Communication and study skills
- Self-appraisal
- Introduction to office studies
- Mathematics
- Introductory sociology

Each student will be allocated a personal tutor who will meet with the student at regular intervals.

Assessment: This will be based on selected pieces of course work and practical tests. There will be examinations in race in British society and in mathematics. In communication studies students produce a file of work.

CAREERS IN SOCIAL WORK

Local Authorities are required by the Social Services Act 1970 to establish Social Service Departments to carry out such functions as child care, welfare services under the National Assistance Act 1948, mental health social work, home help, adult training centres, day nurseries, and social work previously undertaken by some housing departments. Social Service Departments provide a wide reaching single service offering help to deprived children and the aged, the physically and mentally handicapped, the childless family, the one parent family and the single adult. In fact, to all age groups with a great variety of social needs. The social worker is trained to work for and within the community and adopts the following methods in applying his or her skill and training to prevent or alleviate human distress:

■ **Casework:** centred on individuals and families in difficulties, assisting them to meet and resolve their problems and make use of the services available to them.

■ **Group work:** aimed to help people with common problems by fostering mutual support and encouragement among them.

■ **Community work:** based on the assumption that the social worker can act as an initiator within a neighbourhood in order to mobilise available human resources to tackle local problems.

■ **Residential work:** as a short or long-term alternative work setting for people of all kinds and ages who cannot cope in the community or with whom society cannot cope.

Social workers are employed by local authorities, in hospitals, with voluntary social work organisations, or in industry or commerce in personnel management. They may be employed as social workers in the field or in social work administration, although most will find themselves involved in both aspects of the profession. ■

SCHOOL OF HEALTH STUDIES

Head of School: Dorothy Knupfer BA MA RGN RM
RNT CertEd

The School of Health Studies is concerned with programme and course developments in a number of health related areas. It has interests in the developments of Community Nursing. Present courses in the school include full-time and part-time:

- Health Visitor's Certificate
- National Certificate in District Nursing
- District Enrolled Nurse
- School Nurse Certificate
- Practical Work Teachers Certificate (District Nursing)
- Fieldwork Teachers Certificate (Health Visitors)
- Diploma in Professional Studies in Nursing, as well as programmes for assessors and supervisors.

Other programmes include aspects of health service management for staff from the public and private sector. The school also has responsibility for the management and education of nurse training in a unique collaboration with a local health authority. The development of this project is on-going, with discussion taking place with other health authorities interested in developing a similar collaborative venture.

Existing staff in the school include District Nurse and Health Visitor tutors, and staff with expertise in social policy, public administration and sociology. Members of the school make significant contributions to the work of the faculty's Social Policy Studies Unit and are engaged in various research projects, mostly field related. The most recent programme is the inclusion of Health as a field of study in the polytechnics Combined Studies credit accumulation programme.

The school is actively pursuing the commencement of a part-time Nursing Degree programme for the near future.

DIPLOMA IN COMMUNITY HEALTH STUDIES (AND EITHER THE HEALTH VISITOR'S CERTIFICATE OR THE DISTRICT NURSING CERTIFICATE)

Course Leader: Enid Pajak

A one year full-time course of combined theoretical and practical training leading to the Polytechnic Diploma in Community Health Studies and either the Health Visitor's Certificate or the District Nursing Certificate awarded by the English National Board for Nursing, Midwifery and Health Visiting.

HEALTH VISITOR'S CERTIFICATE

Course Leader: Enid Pajak

Course Tutors: Kate Fowler, Elizabeth Mott

FACULTY
OF SOCIAL
STUDIES

A one year full-time course of combined theoretical and practical training leading to the award of a Certificate of Health Visiting by the Council for Education and Training of Health Visitors.

*QUALIFICATIONS FOR ENTRY

Candidates must be State Registered Nurses with approved midwifery or obstetric experience and possess in addition:

- Five subjects at GCSE/'O' level, or
- Other approved educational qualifications, and/or
- Satisfy the Joint Committee as to their educational competence for the course by means of an entrance test.

Confidential professional reports are required and candidates must satisfy both academic and professional staff on their fitness for entry.

COURSE OF STUDY

There are five main areas of theoretical study: the development of the individual, the individual in the group, the development of social policy, social aspects of health and disease, and

principles and practice of health visiting. Students also undertake visits of observation, placements and 9/10 weeks of supervised practice.

Course duration: October to September (51 weeks)

Assessment: Internally set examinations, externally assessed, and written health visiting and environmental studies. Periodic assessment is maintained throughout the course.

Qualification: The Health Visitor's Certificate.

N.B. Applicants should note the following points in connection with the course:

- *The criteria for selection are outlined above.
- Early application is welcomed as it is easier for practical work placements to be found.
- Interview policy – selection is by a panel of health visitor tutors, polytechnic lecturers and nursing officers, a deliberate attempt is made to consider candidates from an academic and professional view point.
- It is no disadvantage if a candidate has applied for other courses.
- The demand for Health Visitors varies with District Health Authorities' budgeting and establishments.
- There is no established transfer system to other courses.
- Established pattern: For placement with fieldwork teachers who are selected in relation to opportunity.
- Methods of teaching and assessment: lecture, seminar, and audio-visual sessions with seminar papers and essays and teaching sessions open to continuous assessment. Sessional examinations are also used so that assessment methods are as comprehensive as possible.
- Student components are reported to the course committee.

CAREERS IN HEALTH VISITING

The Health Visitor is a nurse with a post-registration qualification, the Health Visitor's Certificate. The Health Visitor is an essential member of the community health team, providing a continuing health advisory service to families and individuals: this work has five main aspects:

- The prevention of mental, physical and

emotional ill-health or the alleviation of its consequences.

■ The early detection of ill-health and the surveillance of high risk groups.

■ The recognition and identification of need and mobilisation of appropriate resources where necessary.

■ Health teaching; individual teaching is undertaken by all Health Visitors and those who have a special aptitude may undertake group teaching.

■ The provision of care, including support during periods of stress and advice and guidance in cases of illness as well as in the care and management of children.

The Health Visitor not only identifies social and health needs as a result of the visit following the statutory notification of birth, but is concerned more and more with the prevention of ill-health/health problems on subsequent contact with the family or as he or she becomes known in the locality. The association of the Health Visitor with the family doctor provides further opportunity for establishing contact with families or individuals living alone who present a potential risk to physical, mental or social breakdown.

CERTIFICATE IN DISTRICT NURSING (RGN)

Course Leader: Barbara Charlton

A full-time course of integrated theory and practice leading to the award of a Certificate in District Nursing.

STRUCTURE OF THE COURSE

- Theoretical study (20 weeks) including examination week
- Directed study (6 weeks)
- Practical experience (12 weeks)
- Supervised practice (12 weeks)

Course duration: September to September

*ENTRANCE QUALIFICATIONS

Candidates must be State Registered Nurses/ Registered General Nurses normally with two years post-registration experience and possessing five GCSE/'O' levels or their equivalent.

Consideration will be given to suitable candidates

who do not possess these educational qualifications.

SELECTION PROCEDURE

- Entrance test of 1½ hours duration consisting of a written comprehension test and an essay from a choice of topics.
- Selection interview.

COURSE OF STUDY

Alternating periods of theoretical study and practical experience which are thematically linked. The subjects studied are:

- Principles and practice of district nursing which is dealt with in the following three sub-modules: Current trends in health care, approaches to care, management and teaching.
- Sociology
- Social administration
- Psychology.

Assessment: Includes the following three parts: Four course work assignments; continuous assessment of practical progress and supervised practice; written examination consisting of two three hour papers.

N.B. Applicants should note the following points:

- * The criteria for selection are outlined above.
- Early application is welcomed.
- Candidates are advised to seek secondment for training by consulting the Nursing Officer (District Nursing) in the health district of their choice.
- There is no transfer system to other courses.

CAREERS IN DISTRICT NURSING

A District Nursing Sister/Charge Nurse is a State Registered Nurse with a post-registration qualification, the National Certificate in District Nursing. District Nursing Sisters/Charge Nurses lead a nursing team which forms an integral part of the primary health care team. They are responsible for providing nursing care in the community and accepting responsibility for the professional standard of their own performance.

District nursing includes the application of the following skills and knowledge.

- Assessment of the nursing needs of patients and families.
- Provision of skilled nursing care.

- Planning and implementation of nursing care programmes.
- Utilisation of appropriate resources in the provision of total nursing care.
- Applying effective methods of communication.
- Management of a case-load and a nursing team.
- Imparting skills and knowledge by appropriate teaching methods.
- Evaluating the outcome of nursing care.

District nursing is concerned with caring for patients and also the family unit to which they belong. ■

SCHOOL OF PUBLIC POLICY AND ADMINISTRATION

Head of School: Ken Phillips BA

Public policy and administration is the major focus for the academic and professional courses of this school. The school is supported by staff specialising in teaching and research in the following areas; educational studies and technology, political science, public sector management and social policy and administration. As well as contributing to the work of many other schools in the polytechnic, the School of Public Policy and Administration is responsible for a wide range of full-time and part-time courses.

The major full-time course for which the school is responsible is the Applied Social Studies degree with branches in social work (incorporating CQSW) and social policy and administration. The school also offers a BTEC Public Sector Board HND course.

The part-time courses administered by the school cover courses in education studies and technology, the Applied Social Studies degree, a Diploma in Management Studies (Public Services), and courses leading to professional qualifications recognised by administrative bodies in the public sector.

The school works closely with a wide range of public sector institutions ranging from local authorities to the health service, in order to broaden the experience of public policy and administration for those wishing to seek employment in this field, and also to serve the professional needs of those already employed in this work. In addition, the staff of the school offer research and consultancy services to the various public sector institutions in the north-west of England.

DISABLED STUDENTS

In 1987 the school set up a Special Needs Students' Support Unit initially financed by the Manpower Services Commission as a community project but also able to draw on the polytechnic's

allocation of funds for disabled students throughout the polytechnic.

One of the unit's first concerns is the provision and connection of text handling equipment for blind students, although the various needs of current students are always followed closely. In recent years, sighted students on the Applied Social Studies degree course have volunteered to read onto tape documents required by blind colleagues. These tapes are retained and catalogued by the unit and most set books for the course are available on loan from the RNIB.

A leaflet describing all facilities for special needs students at Lancashire Polytechnic is available on request.

BA (HONS) APPLIED SOCIAL STUDIES

Course Leader: Jack Hampson

Social Work Branch Leader: John Washington
Social Policy and Administration Branch Leader: Bob Quinn

The course has two branches leading to the award of the degree of Bachelor of Arts with Honours in Applied Social Studies. During the first year a choice is made between the **Social Work Branch**, on which places are limited, and the **Social Policy and Administration Branch** both of which begin in the second year. Students are selected for the Social Work Branch through interviews in the third term of the 1st year following a compulsory observational placement in the Easter vacation. Counselling and teaching is provided to help students make a choice between the two branches. Successful completion of the Social Work Branch leads to the award of the Certificate of Qualification in Social Work (CQSW) of the Central Council for Education and Training in Social Work in addition to the award of the BA (Hons) degree. Students choosing the Social Work Branch will complete their studies in four years.

QUALIFICATIONS FOR ENTRY

- A General Certificate of Education/GCSE with passes in five subjects, of which two must be at Advanced level, or
- A General Certificate of Education/GCSE with

passes in four subjects, of which three must be at Advanced level. Qualifications deemed by the polytechnic to be of equivalent standard to those stated in the preceding paragraphs may be accepted as satisfying the entrance requirement.

Applicants over 21 who do not meet the above requirements may be admitted at the discretion of the polytechnic.

Applicants may be asked to attend an interview day; additional open days will be held for those to whom offers are made without interview. A course brochure is available on request.

CURRICULUM

1ST YEAR (Common to both branches)

■ Economics, government and politics I, methods of social research, psychology I, social history, sociology I, introduction to the two branches, courses in study skills and computing.

2ND YEAR (Common to both branches)

■ Social policy and administration (double weighted course), social economics, government and politics II, psychology II, social philosophy, sociology II.

3RD YEAR (Social Policy and Administration Branch)

■ Compulsory social theory and social policy, comparative social policy, and a dissertation. Optional: choice of two options, subject to availability from the following: education policy, employment policy, health services, unemployment and social policy c.1905-1939, housing, ideology, politics and social policy, policy analysis, political economy of welfare, social work studies, sociology of welfare and development, women, social policy and the state, issues in poverty and social security.

Placements: Opportunities may be offered for some students to take placements in administrative agencies within the public sector. Such placements may be arranged in association with the dissertation in the final year of the course.

3RD & 4TH YEARS (Social Work Branch)

■ Polytechnic based teaching in social work, legal studies, psychology, and social policy and administration. This teaching is grouped in three modules: methodology of social work practice,

the individual, society and social work, contexts of social work practice. In addition, students choose two from a range of social work options.

Placements: Practical placements are organised for both years; that in year 3 is for 26 weeks mostly concurrent with teaching in the polytechnic; that in year 4 is a block of 14 weeks at the end of the course.

Assessment: In year 1 students will be assessed on the basis of a mixture of course work and examinations. The second year of the course is assessed by a mixture of course work and examination and this assessment counts as Part One of the Final Examination. Part Two of the Social Policy and Administration Branch takes place at the end of year 3 and is based on examinations plus a dissertation. Part Two of the Social Work Branch is based on a mixture of course work and examinations. Award of the CQSW is dependent upon the award of the degree and the satisfactory completion of placements.

Course duration: September to July (34 weeks) in each year, apart from year 3 and year 4 of the Social Work Branch (both 36 weeks).

FACULTY
OF SOCIAL
STUDIES

HIGHER NATIONAL DIPLOMA IN PUBLIC ADMINISTRATION – BOARD B8

Course Leader: Dr John Barlow

This course is a two year full-time course which is vocational in nature and is intended for students with an interest in pursuing a career in management or administration. Although the context of the course is the management of public sector organisations much of its content is suitable for students wishing to pursue a career in either the private or public sectors. On completion of the HND many students go straight into employment while others go onto degree or other courses. The emphasis placed on the development of a wide range of skills on this course enables students to achieve a high degree of employability. Opportunities are also given for periods of work attachment or placement, though there is no formal course requirement to complete such placements.

CURRICULUM

In both years students will be required to take a number of compulsory and option units. The core units are set out in more detail below. In year one students can choose from the following options: local government in the community, government and the economy, British politics and government, Britain and the EEC.

In year two students can choose from: office information systems, private and public sector accounting, social policy, health services management, personnel administration, industrial relations, policy analysis, comparative public administration.

THE CORE UNITS

1ST YEAR

■ **The Public Sector and its Environment** – this unit introduces students to the nature of public sector organisations, examines the roles and purposes of such organisations and their interaction with the environment in which they operate. Students will be expected to develop an understanding of the local, social, economic and physical restraints in which public sector organisations operate.

■ **The Management of Work Organisations** – this unit develops the student's understanding of public sector organisations through the analysis of the management of work within them. It examines how organisational structures and management processes of public sector organisations respond to, and are shaped by, the external environment.

■ **Operational Techniques for the Public Sector** – this unit is designed to give students an understanding of the collection, analysis and presentation of statistical data which is of relevance to the public sector. The skills developed in this unit will be applied to the work carried out in the other units. Students will be expected to have a high level of numeracy when entering the course, but such skills will be developed through the course.

2ND YEAR

■ **Public Sector Resource Management** – this unit develops the student's understanding of public sector organisation by focusing on their legal, financial and manpower resources. The efficient and effective management of these resources in time of economic restraint is a key

theme which underpins this unit.

■ **Resources Management Techniques** – this unit complements Public Sector Resources Management which can be used by students to manage resources more efficiently and effectively.

QUALIFICATIONS FOR ENTRY

■ BTEC National Certificate or Diploma in Public Administration or Business Studies.

■ One GCE 'A' level pass and at least three GCSE/'O' level passes (or CSE equivalent).

Applicants without any of the above qualifications, particularly mature applicants, will be considered on an individual basis, and may be admitted at the discretion of the polytechnic and BTEC.

Exemptions: Satisfactory completion of the HND can give direct entry onto the second year of a number of degree courses. Students may also obtain exemptions from professional examinations such as Institute of Chartered Secretaries and Administrators, Institute of Health Services Management and Institute of Personnel Management.

CAREERS IN SOCIAL AND PUBLIC ADMINISTRATION

Although primarily an academic qualification, a degree in Social Administration also provides a basis for vocational opportunities in both the public and private sectors of the economy. The BTEC HND course is designed for those seeking employment in the public sector, primarily in administration.

Graduates in social administration and BTEC students have opportunities of entering the central government civil service. In local government there are administrative and research posts in housing departments, education departments and social service departments, and also in the health service and voluntary social service agencies.

In the private sector of the economy there are opportunities of entering industry as management trainees, personnel managers and research workers. The degree also provides a foundation for research and postgraduate courses. The degree is also suitable for entry into teaching and social work. For Careers in Social work see page 108.

COMBINED STUDIES PROGRAMME

Head of Programme: John Brown BSc PhD
Programme Administrator: Jon Baldwin BA ACIS
Programme Co-ordinators: Mike Abramson BA
 MLitt Mike Grannell BSc PhD
Senior Tutor: Colin Sutherland BSc PhD

**BSC (HONS)/BSC/BA (HONS)/
 BA/DipHE/POLYTECHNIC
 ADVANCED CERTIFICATE**

WHAT IS THE COMBINED STUDIES PROGRAMME?

The Combined Studies Programme is the largest provider of degree level course units in the polytechnic with over 1300 students currently enrolled. It provides a very flexible study programme involving 25 different subjects each of which is controlled by one of the schools within the polytechnic. This allows students to select a programme of study across a range of disciplines in the Arts, Business and Management, Humanities, Languages, Science, Social Sciences and Technology.

HOW IS THIS FLEXIBILITY ACHIEVED?

The programme is based on a credit accumulation structure. Over 600 course units are available each of which is credit rated. (A credit is defined as requiring one hour of student workload per week for one academic year). Students select from the range of course units on offer in order to accumulate sufficient credits for the award they require.

WHAT SUBJECTS CAN I STUDY?

Combined Studies is an expanding programme within the polytechnic and listed below is the wide range of subjects which we anticipate will be available in 1990/91.

† Accounting

* American Studies

Applied Physics

Astronomy

Biochemistry

Chemistry

Computing

Economics

Education Studies

Electronics

English

French

Geography

German

Health Studies

History

History and Theory of Art and Design

† Information Studies

Law

Linguistics

† Mathematics

Mathematical Sciences

* Microbiology

† Music

Organisation Studies

Physiology

Politics

Psychology

† Statistics

† Womens Studies

* Available in Year 2 and 3 only

† Subject to approval

In addition to the above, all students follow courses in Contextual Studies and Information Technology as an integral part of their programme.

COMBINED
STUDIES

WHAT AWARDS ARE AVAILABLE?

Because of the flexible nature of the programme students may select as many or as few course units (and hence credits) as they require for their particular purpose. Four different awards are available, namely:

- **Polytechnic Advanced Certificate** – requiring 34 credits and equivalent to one year of full-time study. These credits may be selected so as to provide a broad based award, say in two or three subjects, or may be a specialised updating course in a single subject eg in Computing or Electronics.
- **Diploma of Higher Education** – requiring 66 credits and equivalent to two years of full-time study. Again this may be constructed to provide specialisation or breadth.
- **Unclassified Degree** – requiring 94 credits and equivalent to three years full-time study.
- **Honours Degree** – requiring 104 credits, also equivalent to three years of full-time study.

Students undertaking non-degree awards will normally be able to add additional credits at a future stage to extend their award if required.

HOW DO I CONSTRUCT A DEGREE AWARD?

The degree programme consists of two stages.

STAGE 1

At Stage 1, equivalent to the first full-time year, all students study three separate subjects (10 credits in each), together with Information Technology and Contextual Studies (normally 2 credits in each).

STAGE 2

At Stage 2, equivalent to the second and third full-time years, students may select a programme in a variety of different ways:-

- **Independent Studies** route allows the selection of course units from a range of disciplines so as to construct a broad based programme of studies.
- **Named Degree** route allows you to select courses from two main subjects either equally balanced (a joint degree) or with a greater emphasis on one subject (a major/minor degree).

Students should note that the major and joint degree programmes in French normally require an additional years residence abroad. Also, major honours degree programmes in Computing normally require an additional year undertaking a sandwich placement.

- **Defined Field** route consists of a series of carefully selected course units which lead to one of a number of specialist degree awards.

The defined field awards currently available are in the following areas:

- Astrophysics
- Applied Biology, (Biochemistry)
- Applied Biology, (Biomedical Science)
- Chemistry
- Cognitive Science
- Neuroscience

In addition it is hoped that defined field awards in Applied Statistics, European Studies and in English Language Studies will be available in the near future.

Further information about any of the subjects on the programme or information about the defined field awards is available from the Combined Studies Office, (ext 2488/2491). Please contact us, we will be pleased to help. A brief outline of each of the defined field awards is also contained in the Faculty of Science entry (page 67) and may be useful for initial reference.

WHAT ASSISTANCE WILL I HAVE IN CONSTRUCTING MY STUDY PROGRAMME?

On entry to the polytechnic all students are allocated to an academic counsellor. Your academic counsellor will act as a personal tutor but will also be responsible for helping you to select the most appropriate course units to meet your requirements. In addition you will be provided with a programme handbook, catalogue of course units and appropriate subject/defined field handbooks.

WHAT WILL MY DEGREE BE CALLED?

Your degree title will reflect the content of your chosen programme of studies. Thus students following the independent studies route will be awarded a degree in Combined Studies. For the named award route the title will reflect the two subjects studied, for example a BA (Hons) in

English *and* History (for the joint award) or a BA (Hons) in English *with* History (reflecting the major/minor route). Students following a defined field will be awarded a degree in that single named field eg a BSc (Hons) in Cognitive Science.

WHAT SUBJECTS ARE CURRENTLY AVAILABLE?

The timetabling of the programme is based on a spotting system. To undertake the full range of studies within each subject which you select the subjects must lie on different timetable spots. A list of the subjects currently available together with their position within the spotting system is given below. Within Stage 2 it is possible to study two subjects on the same spot but the choice of course options is likely to be restricted.

Additionally, you should note that, in order to achieve more flexibility for part-time students, it may be that a proportion of your course units will be timetabled in the evening slot (ie, 6.00 pm - 9.00 pm). If you would like further information about the way this system operates, please do not hesitate to contact the Combined Studies Office.

STAGE 1 TIMETABLE SPOTS

SPOT No.	SUBJECTS
1	Astronomy, Biochemistry, History, Organisation Studies
2	Economics, Education Studies, Electronics, Physiology, Womens Studies*
3	English, Applied Physics, Psychology, German
4	Accounting*, Chemistry, Health Studies, History and Theory of Art and Design, Linguistics, Politics, Music*
5	Computing, French, Geography, Law
6	Mathematical Sciences

In making your choice of Stage 1 subjects you should also consider your probable choice of Stage 2 subjects as once again they are on a spot system.

STAGE 2 TIMETABLE SPOTS

SPOT No.	SUBJECTS
1	Biochemistry, Economics English, Applied Physics Psychology, German
2	Astronomy, Chemistry, Electronics, History, Linguistics, Organisation Studies, Physiology
3	Accounting*, American Studies, Health Studies, History and Theory of Art and Design, Mathematical Sciences, Politics, Music*
4	Computing, Education Studies, French, Geography, Law, Microbiology, Womens Studies*

* Subject to approval

COMBINED STUDIES

WHAT QUALIFICATIONS ARE NEEDED?

STANDARD ENTRANCE QUALIFICATIONS

(normally necessary for applicants under 21 years of age).

(i) **General entrance requirements:**

- GCE/GCSE passes in at least four subjects, including three at Advanced level or a combination of Advanced and Advanced Supplementary levels equivalent to three Advanced levels or six Advanced Supplementary levels.
- GCE/GCSE passes in at least five subjects, including two at Advanced level or a combination of Advanced and Advanced Supplementary levels equivalent to two Advanced levels or four Advanced Supplementary levels.
- A good ONC or OND or BTEC equivalent.
- Appropriate Open College qualifications.

Furthermore, such applicants will normally be expected to have obtained GCSE/'O' level English Language or its equivalent.

(ii) Subject-specific entry requirements:

In addition to the general entry requirements for the programme, some subjects have specific entry requirements which are as follows:

APPLIED PHYSICS

- A pass at 'A' Level in Physics plus the study of Mathematics to 'A' level, or
- A pass at 'A' level in Mathematics plus at least one year's study of Physics at 'A' level, or
- A pass at 'A' level in Physical Science, or
- A pass at A/S level in Physics and Mathematics, or
- Equivalent qualifications.

ASTRONOMY

- A pass at 'A' level in Physics or Mathematics, or
- A pass at A/S level in Physics and Mathematics.

BIOCHEMISTRY

- The study of a biological subject at GCSE/'O' level, also students should normally have studied Chemistry and at least one other science subject beyond GCSE/'O' level and have a pass in one of these at 'A' level, or
- A pass at GCSE/'O' level in a biological subject plus a pass at A/S level in Chemistry and two other science subjects, or
- An appropriate combination of the above two.

CHEMISTRY

A pass at GCSE/'O' level in Mathematics and either a pass at 'A' or A/S level in Chemistry, or their equivalent, (eg Open College of the North West BTEC Awards).

ECONOMICS

A pass at GCSE/'O' level in Mathematics.

ELECTRONICS

- A pass at 'A' Level in Physics plus the study of Mathematics to 'A' level, or
- A pass at 'A' level in Mathematics plus at least one year's study of Physics at 'A' level, or
- A pass at 'A' level in Physical Science, or
- A pass at A/S level in Physics and Mathematics, or
- Equivalent qualifications.

FRENCH

A pass at 'A' or A/S level in French.

GEOGRAPHY

A pass at GCSE/'O' level in Mathematics.

GERMAN

A pass at GCSE/'O' level in German.

MATHEMATICAL SCIENCES

A pass at 'A' or A/S level in Mathematics.

PHYSIOLOGY

A pass at GCSE/'O' level in a biological subject and a physical science plus either

- A pass at 'A' level in a science subject, or
- A pass at A/S level in two science subjects, or
- Equivalent qualifications.

PSYCHOLOGY

- A pass at GCSE/'O' level in Mathematics, or
- A pass at 'A' level in Psychology.

NON-STANDARD ENTRANCE REQUIREMENTS

Available to applicants over 21 years of age.

Mature students lacking the standard entrance requirements may gain admission to the programme, provided that they can display potential to sustain degree-level study and an ability to benefit from their proposed course of studies. In deciding this, admissions tutors use a variety of criteria, including alternative and professional qualifications, life experience, motivation and clarity of purpose and the subjects to be studied. In some cases, qualifications already obtained, (eg Open University credits) may lead to exemption from some parts of the Combined Studies Programme.

Applicants with no recent educational experience may find it beneficial to first enrol on the polytechnic's Pre-Degree Studies course or a similar course (eg with the Open College of the North West). Normally, non-standard applicants are invited for an interview at which admissions and/or subject staff are present.

**WHAT SUBJECTS DO I NEED
TO HAVE STUDIED AT
STAGE 1 IN ORDER TO
STUDY PARTICULAR SUBJECTS
OR DEFINED FIELDS AT
STAGE 2?**

Normally, in order to take a course unit in a particular subject at Stage 2, you must have studied that subject at Stage 1. The following Stage 2 subjects, however, have special Stage 1 pre-requisites:

■ To study Applied Physics at Stage 2 students must have passed at Stage 1 either Applied Physics and Mathematical Sciences plus a third subject from a different timetable spot or Applied Physics plus two other subjects from different timetable spots together with the study of some additional mathematics at Stage 1.

■ To study American Studies at Stage 2 students must have passed at least two subjects from English, Geography, History and Politics at Stage 1.

■ To study Biochemistry at Stage 2 students must pass either Chemistry or Ancillary Chemistry at Stage 1.

■ To study Microbiology at Stage 2 students must have passed Biochemistry at Stage 1.

■ To study Physiology at Stage 2 students must pass Biochemistry or Ancillary Biochemistry at Stage 1.

For Stage 2 Defined Fields, the following Stage 1 requirements apply:

Applied Biology (Biomedical Sciences) – pass Biochemistry and Physiology at Stage 1, together with one other subject. If the third subject is not Chemistry a pass in ancillary chemistry is required.

Applied Biology (Biochemistry) – pass Biochemistry and two other subjects at Stage 1. If the other subjects do not include Chemistry a pass in ancillary chemistry is required.

Astrophysics – pass Astronomy, Mathematical Sciences and Applied Physics at Stage 1.

Chemistry – pass Chemistry at Stage 1 and two other subjects.

Cognitive Science – pass Computing, Linguistics and Psychology at Stage 1.

Neuroscience – pass Biochemistry, Physiology and Psychology at Stage 1.

**WILL MY CAREER PROSPECTS
BE ENHANCED BY STUDYING
ON THE COMBINED
STUDIES PROGRAMME?**

Yes. All courses within the programme contribute to the development of those skills which are much valued by employers. These include the ability to collate and analyse information, the presentation of evidence and the communication of ideas. Although not specifically vocational, the degree provides the necessary academic training and status for the graduate to proceed in a variety of ways. For example, the degree may qualify you for postgraduate research, or for one of a large number of one-year postgraduate vocational training courses. Study in depth of two disciplines chosen from the sciences is sound preparation for professional practice in the scientific industries and government service. In addition the defined fields in the sciences provide routes for students who have a very clear view of their future career.

Combined Studies graduates may also seek careers in areas such as journalism, personnel management, social work, teaching, advertising, librarianship, business and administration. To help them decide, the Polytechnic Careers Service provides a professional counselling and guidance service throughout their undergraduate career.

COMBINED
STUDIES

**STILL INTERESTED? IF SO
WHAT SHOULD YOU DO NEXT?**

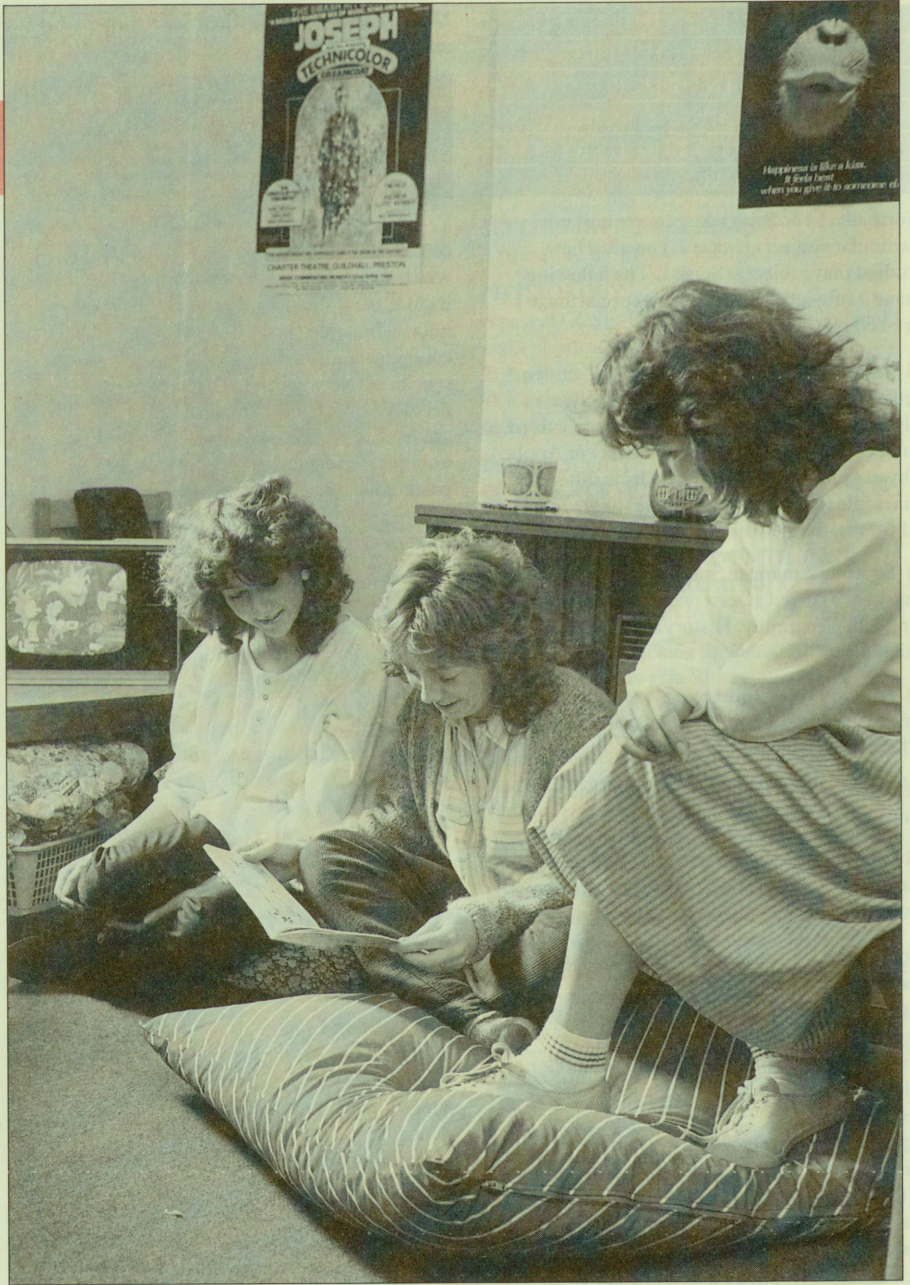
■ Contact the Combined Studies Office for more information about the programme or individual subjects in which you are interested. We can supply further information folders and subject/defined field fact sheets.

■ Complete the PCAS application form if you are applying through the clearing house system.

■ If you are applying only to Lancashire Polytechnic because of family, or other personal reasons then you should use the polytechnic full-time application form available from the Combined Studies Office or from the Educational Liaison Office.

■ If you have any queries at all, please contact the Combined Studies Office, (ext 2488/2491). We will be pleased to help. ■

FURTHER
INFORMATION.



FURTHER INFORMATION

FURTHER
INFORMATION

RESIDENTIAL SERVICES

Head: Geoff Carr ACIS FRSA MBIM

The polytechnic has approximately 850 units of accommodation in the form of halls of residence, polytechnic residences and polytechnic houses administered by the Residential Services Section, which are allocated primarily to first year students.

HALLS OF RESIDENCE AND POLYTECHNIC RESIDENCES

The halls are situated on the main polytechnic site. They provide accommodation for 249 residents. Both the Residences Manager and the Deputy Residences Manager are residential members of staff.

The halls and residences operate on a self-catering basis. The halls comprise of three-storey blocks of single study bedrooms and the residences cater for around 180 students in varying size groups in either single or shared bedrooms with the usual communal facilities. The halls are situated on the main campus and polytechnic residences are located within two miles of the main polytechnic campus. Amenity rooms are provided for the cooking of meals and are equipped with cookers, food lockers and refrigerator. Crockery and cutlery are not included. Students may, however, purchase meals in the polytechnic refectory.

Students are required to provide their own bedding. Laundry facilities are available via local launderettes. Both bedding and cutlery etc. can be obtained on arrival in Preston from local retailers. Communal areas are cleaned by the polytechnic's domestic staff but students are responsible for the cleanliness and tidiness of their own study bedrooms.

Fees are calculated on the assumption that residence, will be for a full academic year, excluding vacation periods. However, students may remain in halls or residences during the

vacation periods subject to the Residences Manager's approval and pre-payment of appropriate fees.

POLYTECHNIC HOUSES

The polytechnic owns a number of houses. Typically the facilities will be shared by a small group of students, the majority of whom will have a single study bedroom. The properties are fully furnished but crockery and cutlery are not included and students are required to provide their own bedding. Laundry facilities are available via local launderettes. Both bedding and cutlery etc. can be obtained on arrival in Preston from local retailers. Each property has a kitchen, equipped with cooker, refrigerator, kettle, mop and bucket, vacuum cleaner and ironing board. Students are collectively responsible for the cleanliness and tidiness of the premises.

Fees are calculated on the assumption that occupancy will be for a full academic session, excluding vacation periods. However, students may remain in occupancy during the vacation period subject to the Housing Manager's approval and pre-payment of the appropriate fees. Most of the properties are within two miles of the main polytechnic campus.

Information regarding admissions to polytechnic controlled accommodation will be forwarded to potential students by the Faculty Registrar. The Residential Services Section works in close liaison with the Accommodation Service, which deals with students primarily in the private sector.

Another important feature of the work of the Residential Services Section is the promotion of polytechnic accommodation and services during vacation periods for holidays or similar purposes. Enquiries from potential clients are welcomed. ■

STUDENTS UNION

FURTHER
INFORMATION

St Peter's Square
Fylde Road
Telephone: Preston (0772) 58382

The Students' Union is situated in a purpose built building on Fylde Road. It is the official body that represents all students at the polytechnic. The Students' Union fulfils five main functions:

- **Campaigning** on relevant local and national concerns.
- **Welfare** advice to students across a wide range of issues, including grants, academic affairs, accommodation etc.
- **Representation** of students throughout the polytechnic on various committees.
- **Social facilities** including entertainments, and the funding of a large number of clubs and societies.
- **Commercial facilities**, including the provision of two bars, a shop, various catering outlets etc, all offering discounted goods to students.

The Students' Union is affiliated to the National Union of Students, the national organisation representing over one million students in all kinds and sizes of educational institutions.

Students' Union membership cards are issued at enrolment. The possession of your membership card entitles you to attend and vote at general meetings, to stand and vote in Students' Union elections, to participate in social activities and to join clubs and societies.

Your Students' Union membership card must be photographed and stamped and carried by you at all times. ■

POLYTECHNIC CATERING SERVICE

Catering Officer: Veronica Holden

The refectory in the Foster Building provides a full breakfast, lunch and evening meal service including a full salad bar, a health food bar and is licensed to serve drinks.

Hours currently: 8.00 am to 7.45 pm Monday - Thursday, 8.00 am to 6.45 pm on Friday.
Adelphi Building: 9.00 am to 7.35 pm Monday - Thursday, 9.00 am to 4.30 pm on Friday.
Robin House: 9.00 am to 4.30 pm Monday - Thursday, 9.00 am to 3.30 pm on Friday.
Marshall House: 9.00 am to 4.30 pm Monday - Thursday, 9.00 am to 3.30 pm on Friday.
Victoria Building: 9.00 am to 4.30 pm Monday - Thursday, 9.00 am to 3.30 pm on Friday.
Livesey House: 9.00 am to 5.00 pm Monday - Thursday, 9.00 am to 3.30 pm on Friday.
Hanover Building: 9.00 am to 4.30 pm Monday and Wednesday, 9.00 am to 8.00 pm Tuesday and Thursday, 9.00 am to 3.30 pm on Friday.

All have coffee/snack bars which provide light snacks, soft drinks, etc.

Food is available at St Peter's Arts Centre each day from 10.00 am to 3.00 pm and at some evening functions. A staff lounge is available for use each day by all polytechnic staff, which provides a salad bar, hot food, light snacks and drinks, and is available in the evenings for functions by arrangement with the Catering Officer.

The Catering Service seeks to ensure that it is sensitive in its provision to the needs of vegetarians or those whose religious or cultural adherence precludes them from eating certain types of food.

Private functions, discos, dances, meetings, or parties can all be arranged at very reasonable cost.

Support your Refectory Service and help keep prices down! ■

POLYTECHNIC ARTS CENTRE

Co-ordinator: Trevor Lloyd

The Arts Centre occupies the former St Peter's Church, the foundation site of which was laid in 1821. The architect was Thomas Rickman. The tower and spire were added in 1852. The church closed in 1973, but was saved from demolition and after renovation, was reopened as the Polytechnic Arts Centre in 1976. It retains many of the features of the original building including the delicate cast iron columns and arches supporting the galleries.

Each term the Arts Centre hosts a continuous programme of exhibitions and arts events of many kinds, all of which are open to the public as well as to members of the polytechnic. The Arts Centre offers space, including rehearsal facilities, for arts activities originating within the polytechnic, such as dance, drama, and music workshops. Coffee and light refreshments are served from 11 am to 3 pm during term.

For further information please contact the Co-ordinator on (0772) 262040. ■

THE LIBRARY AND LEARNING RESOURCES SERVICE

Librarian: Professor Peter Brophy JP BSc MInfSc
ALA

It is a feature of higher education that students are required to develop habits of independent learning; they are therefore encouraged to become effective users of learning materials and of information of all kinds and from a variety of sources. The polytechnic has therefore developed an up-to-date Library and Learning Resources Service which aims to provide a dynamic user-orientated service rather than one which merely acts as a collector and organiser of materials. The Library is one of the main strengths of the polytechnic.

Nowadays information and ideas of direct relevance and interest to the students and staff of the polytechnic are published not only in books and journals but in an increasingly diverse range of media, including audio and video tapes, slides, records, films, electronic sources etc. These and other media are being made available in response to the educational and research needs of the users of the Library.

Science, Technology, the Social Sciences, Business, Art and Humanities are well represented in the stock of the Library. The Preston Incorporated Law Society has deposited its collection with the polytechnic and this is housed in the Library.

Membership of the Library is open to all staff and students of Lancashire Polytechnic. Under a reciprocal agreement students and staff of Lancaster University are also eligible for full membership. The Library also offers 'external membership' including borrowing facilities and a variety of information services to certain categories of individuals and companies, schools and other corporate bodies in the area. Further details of these services are available on request. Other members of the public can use the Library for reference purposes.

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All new students are offered an introductory visit to the Library. Seminars and tutorials on the use of library materials are provided for many courses by a team of subject librarians. They have been appointed to cover the fields of Arts, Business Studies and Law, Sciences, Social Sciences and Management and Technology, developing the stock in their respective subject areas, assisting in the provision of an information service, preparing printed guides to the stock and services available and generally ensuring that the Library responds to the needs of users by keeping in close touch with staff and students.

Study and reference facilities, the loan of books and other materials, self-service photocopying, a 'restricted loan collection' of books in heavy demand and searches of information held on computer databases are among the other services offered. The Library Information System has on-line public access facilities, available via terminals throughout the Library.

The Library building was opened in January 1979 alongside the Polytechnic Arts Centre and the Students Union. Over 700 reader places, including study tables, drawing tables and carrels are included on its three floors. In addition a classroom equipped for audio-visual use, two seminar rooms and several sound-proofed carrels are provided. Enquiries desks are staffed by professional librarians on each of the three floors.

The total resources of the Library (some 260,000 volumes, 1,700 current periodical titles and over 100,000 audio-visual items) are supplemented by co-operative arrangements with other local libraries, and by access to national and international information networks.

The Preston District Central Library (formerly the Harris Library), which is part of the Lancashire Library, is a valuable additional resource available to polytechnic staff and students. It houses large fiction and non-fiction lending collections, a reference library and a music library.

Further information about the use of the Polytechnic Library is available from the enquiries desk.

POLYTECHNIC BOOKSHOP

The polytechnic bookshop, operated by Parrys Ltd, the Liverpool University booksellers, is located next to the polytechnic main entrance. It is open throughout the day. The bookshop carries a good range of course text books and is able to provide an excellent service for supplying other academic books through its ordering system. Students may also purchase stationery, including special laboratory notebooks through the bookshop. ■

COMPUTING SERVICE

*Head of Computing Services: Ted Smith BSc MSc
PhD CEng FIMechE*

The Computing Service is an independent unit responsible for making computer facilities available to students on polytechnic courses, to members of staff for teaching and research and to all sections of the polytechnic administration.

Its central educational equipment is accessible from any of the terminal teaching rooms and casual use areas in the centre, as well as from the numerous terminals throughout the polytechnic. Equipment for word processing and accessing the corporate database is available in virtually all administrative offices in the Directorate, faculties, schools, services and sections.

The mission of the Computing Service is to efficiently provide, within the framework of the Polytechnic's Mission Statement, and within available resources, an innovative, responsive and supportive service to all users of polytechnic computing facilities.

All staff and students are welcome to make use of the facilities of the Computing Service and of the advisory facilities available there. The centre has 3 terminal teaching rooms, a graphics workstation room, a user work area, offices and reception. Thus, within the centre, in addition to over 80 terminals connected to the central systems (see below), students and staff have access to a diverse range of facilities including 32 bit Apollo workstations, high resolution colour and monochrome graphics screens, colour plotting facilities, IBM PC and compatible microcomputers with extensive software. Computing equipment for the visually handicapped is available in the library and in some schools. The centre offers a braille preparation service.

The designation of Lancashire Polytechnic as a major National Centre for Information Technology has led the polytechnic to accelerate existing plans to make further developments in the area of computing. These plans include a new Computer Centre to house these additional staff

and facilities, the construction of which is due to be completed by summer 1990.

The Service has almost 10,000 registered users and for the academic year 1990/91 well over 800 terminals (of which around 450 can be supported simultaneously) are connected to the following systems:-

- PRIME 9955 Computer – 16 megabytes of memory, 995 megabytes of on-line disk storage, 156 lines. For educational use.
- PRIME 9755 Computer – 12 megabytes memory, 876 megabytes of on-line disk storage, 112 lines. For educational use.
- PRIME 9755 Computer – 10 megabytes memory, 1191 megabytes of on-line disk storage, 112 lines. For educational use.
- PRIME 750 Computer – 8 megabytes memory, 695 megabytes of on-line disk storage, 80 lines. For educational use.
- VAX 11/750 Computer – 5 megabytes memory, 456 megabytes of on-line disk storage, 32 lines. For educational use.
- VAX 11/750 Computer – 5 megabytes memory, 405 megabytes of on-line disk storage, 32 lines. For educational use.
- MICROVAX Computer – 6 megabytes memory, 456 megabytes of on-line disk storage, 8 lines. For use in astronomical research.
- APOLLO Network – A collection of 40 networked Apollo workstations primarily for use by the Faculty of Technology with a total of: 42 megabytes memory, 1060 megabytes of on-line disk storage. For educational use.
- PRIME 9755 Computer – 8 megabytes memory, 876 megabytes of on-line disk storage, 100 lines. For administrative word processing and office use.
- PRIME 9755 Computer – 8 megabytes memory, 1292 megabytes of on-line disk storage, 80 lines. For administrative and finance use.

Each computer has magnetic tape back up and a central fast printer. Each educational terminal can connect to any of the 6 main educational machines via a GANDALF PACXSE switch with a total capacity of 1024 terminal lines and 512 computer port lines. The 6 PRIME machines are linked via PRIMENET thus giving all PRIME users access to the A0 and A3 and A4 plotters.

Also available via the switch is a connection to the Joint Academic Network (JANET) which links polytechnic and university computing

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facilities. Thus research workers can access academic computers elsewhere in the UK for use in collaborative projects. Likewise, links are provided to Rutherford and Daresbury by this system. A Lancashire Colleges network was installed in 1985 to provide links between PRIME machines in local further education colleges and the polytechnic.

A wide range of applications and systems software is available on the PRIME and VAX machines and a team of analysts/programmers is responsible for developing and maintaining the software systems for use within the establishment. All the major programming languages are available including COBOL, FORTRAN BASIC, PASCAL and ADA in an on-line form. Various low level languages, microcomputer cross assemblers and database management systems are also available to provide an excellent environment for programme development. In addition users can employ a wide range of software packages applicable in diverse areas such as business, engineering, sciences and geography. These packages, many of which are widely used in commerce and industry are able to meet the needs of those who wish to use the computer purely as a resource in their subject areas as well as those who require a deeper understanding of the computer in their work. The centre works closely with the Faculty of Arts to provide computer-aided design facilities including sophisticated paintbox systems, automated pattern design and layout.

The Service also plays a major role in the purchase and support of microcomputers both in the centre itself and in the faculties. The polytechnic has large numbers of IBM PCs (and clones), and BBC microcomputers (fitted with the Computing Service's ROM chip to enable terminal emulation and file server capabilities on PRIME and VAX hosts), on all of which the centre provides a full service.

A number of networks of powerful PC-based workstations, which will in turn be connected to a polytechnic-wide broadband system, is currently being installed.

SERVICE ORGANISATION

The Computing Service is headed by a Burnham Head of Department who reports to, and advises the Directorate on policy and planning matters affecting computing in the polytechnic and who

represents the polytechnic on national computing bodies.

The Deputy Head is responsible to the Head of Computing Services for computing development and the activities of the project groups (Academic Support, Systems Software and Networks). The Operations Manager is responsible for the day to day operational aspects of the Service including machine operation, data preparation and reception.

Assistance to students and members of staff wishing to make use of computing facilities (or merely wishing to enquire as to the feasibility of such usage) for teaching and/or research is organised by the Academic Support project group. This group is responsible for documentation, the advisory service and development and/or implementation of new software. It also runs training seminars for users on system use and specific software packages.

The Service provides a support service to local schools and local further education colleges. The DES has designated the Service as a centre of expertise for staff development in information technology in NAFE colleges throughout the north-west of England.

The Computing Service also provides full hardware support for the central machines used by the Management Information Service, which itself provides a support service to all administrative users.

Members of staff are allocated to act as the first point of contact in faculties within the polytechnic. They represent the Service on Faculty Boards, School Boards and are members of the Faculty Information Technology working party. Each member, wherever possible, has some knowledge of the faculty subject area to which they are appointed and are responsible for their computing interests. As the role of representatives has changed and with the increased awareness of information technology, it has become vital that extra support be available. In the light of this, a second member of staff from the Service has been allocated as 'backup' to assist when needed.

Documentation and a variety of information (including introductory manuals) is available at the reception desk whose staff will refer enquiries to the project or operations groups as required. New users can also register and be granted a user area at reception.

During term time, the Service is open from 9.00 am to 8.45 pm Monday to Thursday, 9.00 am to 5.00 pm (approx) on Friday, and 9.00 am to 1.00 pm on Saturday (spring and summer terms). During vacations the Service is open from 9.00 am to 4.30 pm Monday to Thursday and 9.00 am to 4.00 pm on Friday. ■

COMMERCIAL AND INTERNATIONAL UNIT

Head: Eileen Murphy

Projects Manager: Neil Maynard BA DMS

The polytechnic's new Commercial and International Unit (CIU) has been established to provide a comprehensive service to business, industry and the public services. These include consultancy, testing services, languages training, translations and interpreting, short courses and conferences, international liaison, cultural developments, technology transfer, industrial and academic research collaboration, conference facilities and summer school programmes.

The CIU co-ordinates these services and provides an invaluable point of contact to the wide range of expertise available within Lancashire Polytechnic.

The CIU also co-ordinates the polytechnic's extensive international links which now include partnerships in Europe (EEC and EFTA countries), North America, Singapore, Malaysia, Hong Kong and China.

For further information contact Jean Minall, Tel: Preston (0772) 201201 ext 2003.

LANCASHIRE AND CUMBRIA LX CENTRE

The polytechnic, along with a number of other colleges and industrial partners has been instrumental in establishing the Lancashire and Cumbria Languages for Export (LX) Centre. It is one of 12 or more established as part of a national network to provide language training and

services to organisations in order to help them improve their export potential.

The services offered by the LX Centre include language training, interpreting and translation services, cultural briefings, export and financial services and training needs analyses and audits.

By bringing together a number of expert partners the LX Centre will act as a first point of reference for language service enquiries, will co-ordinate and market the services of the various partners and will arrange additional provision as necessary. By combining the services of a number of partners any language or region in the world can be covered.

The LX Centre is managed by Lancashire Polytechnic and the other partners include Blackburn College, WR Tuson College, Lancashire College, Lancaster University, Royal Bank of Scotland, Preston Borough Council, Department of Trade and Industry, Lancashire Enterprises Limited, the North West Regional Management Centre and the Central and West Lancashire Chamber of Commerce. ■

FURTHER
INFORMATION

EDUCATIONAL LIAISON OFFICE

FURTHER
INFORMATION

Educational Liaison Officer:
Donald R Cullingworth BA MA PGCE

Pupils in schools, students in colleges and members of the community frequently need information and advice about courses at Lancashire Polytechnic and polytechnics generally and the Educational Liaison Office provides prospective students and careers staff with details of courses and admission procedures. The Liaison Office will answer queries by letter, telephone or in person and prospectuses and course literature are available free to enquirers. There is also a polytechnic video loan service.

Another function of the Educational Liaison Office is to establish and maintain personal contacts between the staff of schools and colleges and the polytechnic and the Educational Liaison Officer and polytechnic staff regularly visit schools and colleges to talk about courses and life in polytechnics, to lecture on specific subjects or to assist at careers evenings and conventions both locally and further afield. Careers staff are invited to contact the Educational Liaison Officer to discuss suitable arrangements.

Visits of staff, parents or groups of fifth or sixth form pupils to the polytechnic are welcomed and every attempt is made to cater for the special interests of a party of school or college visitors. Teachers, pupils and the general public are encouraged to attend the polytechnic's biennial Open Day. For those seeking admission in 1990/91 or 1991/92 this will be held on 23rd and 24th March 1990. Individual faculty and departmental open days/events are held throughout the year and are widely publicised to schools and colleges. These events provide an opportunity for in-depth discussions on courses and for viewing facilities.

Other areas of the polytechnic also offer liaison services for schools and colleges eg. The Colleges and Schools Computer Support Unit, the Continuing Education Service, the Racial

Equality Unit, the Library and Learning Resources Service and the Observatories. The Educational Liaison Officer acts as the initial contact for those wishing to link into the liaison services offered by these sections of the polytechnic.

The Educational Liaison Office is the source of information for the Advanced Further Education Information Service (AFEIS) which operates after the publication of 'A' level results and contributes course and course vacancy information to a variety of external publications and databases. The Office is linked via a BBC microcomputer to the Times Network for Schools (TTNS) and is therefore able to quickly update national course vacancy data bases and also provide course vacancy information at other polytechnics.

The Liaison Office also undertakes a regular geographical survey of applicants to polytechnic courses and arranges the notification of successful graduating students to their former schools/colleges.

For further information or advice please contact:
Educational Liaison Office
Lancashire Polytechnic
Preston PR1 2TQ
Tel. Preston (0772) 201201 ext 2626

LANCASHIRE POLYTECHNIC

EDUCATIONAL LIAISON INFORMATION SERVICE

If you would like to apply to join a polytechnic course, or if you require further details of any of the full-time and sandwich courses listed overleaf, simply complete this form.

Return to: Educational Liaison Office,
Lancashire Polytechnic, Preston PR1 2TQ.
Tel: (0772) 201201 ext. 2626



Name _____ Date of Birth _____

Address _____

Post Code _____

Please send me a full time polytechnic application form

I am interested in postgraduate work in _____

Please send me further course details (also tick appropriate box overleaf)

Please send me information about the accommodation service

I am a mature student and do not have all the formal course entry requirements, please advise me. My daytime telephone number is _____

I am interested in a part-time course in _____

Please send me the mature student booklet — details of the associate student scheme

I have the following query not covered above _____

Signed _____

Date _____

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Every care has been taken to ensure that the information contained in this prospectus is accurate at the time of printing but the course programme is subject to continuing development and changed circumstances may necessitate cancellation of courses or alterations in the programme of courses, course location, course content, fees and other matters. The polytechnic reserves the right to make changes at any time, before or after a candidates admission. As much notice as possible will be given of any such changes but the polytechnic cannot accept any liability arising out of or in connection with them. The polytechnic is seeking to introduce a Credit Accumulation and Transfer Scheme (CATS) for delivery of its educational programme. The introduction of CATS will not itself affect the availability of the qualifications identified in this prospectus but will make it possible for students to take options which would not otherwise have been available to them. ■