



**PRESTON**  
**TON PR**

**POLYTECHNIC**  
**Prospectus 1980**

**Full Time Courses**

# Preston Polytechnic



*Preston Campus:*

Corporation Street, Preston PR1 2TQ (0772-51831)

*Poulton Campus:*

Breck Road, Poulton-le-Fylde, Blackpool FY6 7AW (0253-884651)

*Chorley Campus:*

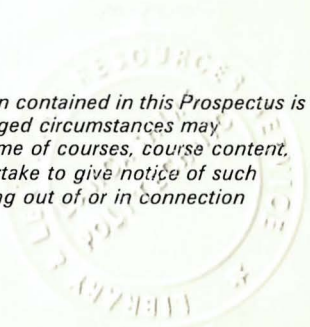
Union Street, Chorley PR7 1ED (02572-5811)

**Director: H. D. LAW, BA, PhD, CChem, FRIC**

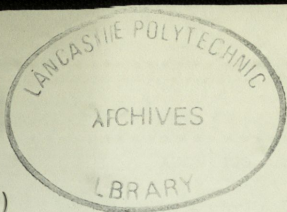
## Full-Time and Sandwich Courses 1980/81

*Although every care has been taken to ensure that the information contained in this Prospectus is accurate at the time of printing it must be understood that changed circumstances may necessitate cancellation of courses or alterations in the programme of courses, course content, fees and other matters dealt with. The Polytechnic cannot undertake to give notice of such cancellations or alterations, and cannot accept any liability arising out of or in connection with them.*

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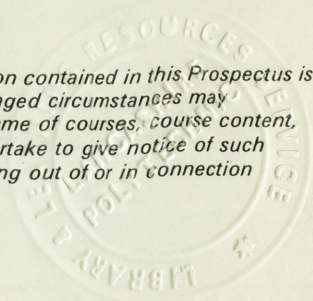
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## Full-Time and Sandwich Courses 1980/81

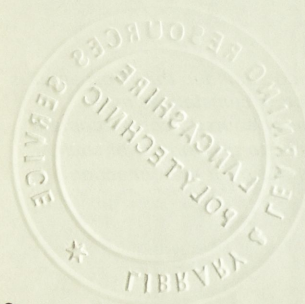
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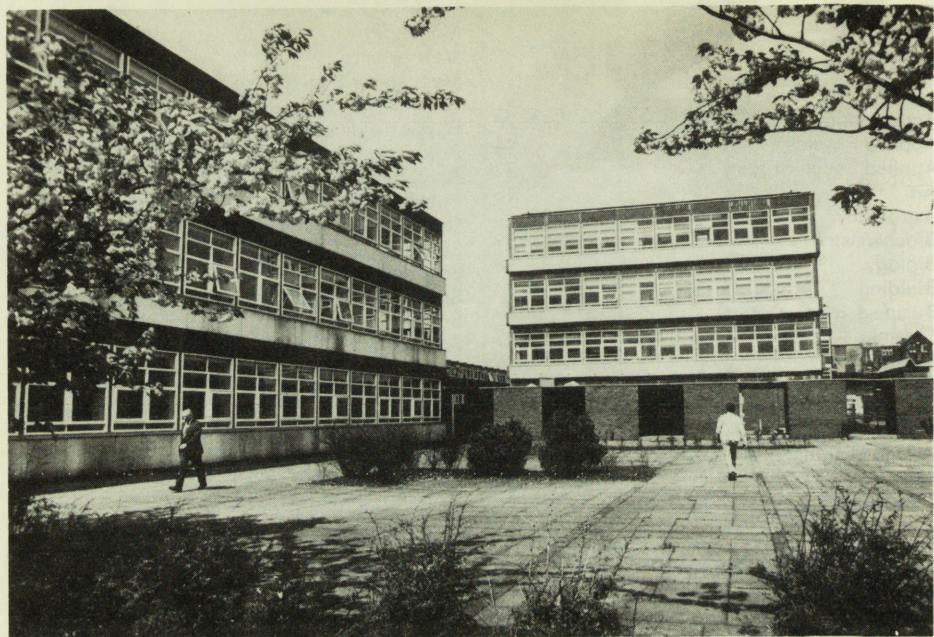
# Contents

		The Library and Learning Resources Service	99
		Computer Unit	101
		Centre for Educational Technology	102
		Lancastrian School of Management	103
		Index to Staff List	105
		Staff List	106
		Maps of Poulton	125, 126
		Maps of Preston	127, 128
Subject Index	3		
The Polytechnic	5		
Courses – General	7		
Admission to Courses	9		
Entry Requirements			
Application			
Overseas Students			
Grants			
Faculty of Art and Design	13		
Faculty of Business and Management	23		
Faculty of Science and Technology	35		
Faculty of Social Studies and Humanities	71		
School of Education	83		
Student Information	85		
Calendar	85		
Enrolment and Induction	85		
Fees	86		
Permission Vouchers	88		
Regulations	88		
Examinations and Assessment	88		
Student Welfare	89		
Student Services	89		
Services to Schools and Industry	92		
Students' Union	93		
General Studies Unit	95		
Physical Education and Recreation	95		
Polytechnic Arts Centre	95		



# Subject Index

Accountancy	24, 29	Marketing	27
Applied Physics	44	Mathematics	38
Applied Social Studies	72	Mechanical Engineering	54
Art	13	Physics	38, 43
Astronomy	37, 43	Physical Recreation	95
Biochemistry	38	Production Engineering	54
Biology	37, 38	Psychology	78
Building	64	Public Administration	29
Business Studies	27	Quantity Surveying	64, 66
Ceramics	19	Science	35
Chemistry	37, 40	Secretarial	81
Construction and Urban Studies	64	Social Administration	72
Decision Studies	28	Social Studies	72
Design (Art)	18	Social Work	73
Design (Engineering)	57	Spanish	29, 82
Ecology	38	Statistics	38
Economics	27, 80	Surveying	64, 66
Education	83	Technician Education Council Courses	68
Electrical Engineering	48	Teacher Training	83
Electronic Engineering	48		
English	80		
Fashion	15		
Finance Studies	28		
Fine Art	16		
Foreign Language	29, 80, 82		
Foundation Studies (Art)	21		
French	29, 80, 82		
Geography	80		
German	29, 82		
Graphics	18		
Health Visiting	75		
History	80		
History of Art	17		
Humanities	80		
Journalism	82		
Labour Studies	27		
Languages	29, 80, 82		
Law	30		
Management Studies	32		



*Main campus*



*Main campus*

# The Polytechnic

Preston Polytechnic was designated on 1st September, 1973, the last of the 30 Polytechnics established as a result of the 1966 White Paper "A Plan for Polytechnics and other Colleges". The Harris College on which the Polytechnic was based was a major college in the North West, having its ancestry in a Mechanics' Institute founded in 1828.

During the first six years after designation, the Polytechnic has developed rapidly, evolving many degree and other courses and becoming a focus for higher education in Lancashire. The base of the Polytechnic became further extended in September, 1975, when the Colleges of Education at Chorley and Poulton-le-Fylde merged with the Polytechnic in accordance with a scheme drawn up by the Lancashire County Council and approved by the Secretary of State for Education and Science.

The governing body of the Polytechnic is the Polytechnic Council which has responsibility for "the general direction of the Polytechnic". It includes members appointed by the Lancashire County Council, the University of Lancaster, the Manchester and Liverpool Polytechnics, teachers' unions, co-opted members from industry, commerce and the professions, the Polytechnic staff and students. The Academic Board, under the chairmanship of the Director, is responsible for planning, co-ordination, development and oversight of the academic work of the Polytechnic. The Board is composed of senior academic and administrative officers, members appointed by and from the full-time staff, members appointed by the Students' Union, and co-opted members.

## Academic Structure

The Polytechnic has recently adopted a structure based on four Faculties: Art and Design; Business and Management; Science and Technology; and Social Studies and Humanities.

Each Faculty has a number of Divisions which are responsible for teaching their subjects across the whole range of Polytechnic course. Groups of cognate Divisions form Schools, the departmental unit in the structure.

## Preston and the Surrounding Countryside

Situated on the banks of the Ribble and on the London and Midlands to Scotland railway route, Preston is the centre of a network of communications. Being midway between the capitals of England and Scotland it was often in the past visited by royal and distinguished persons (not always welcome!) in their progress north and south. The M6 motorway now passes through, linking Preston with the industrial Midlands and London and with the Lake District. Eventually there will be a motorway link with Scotland. London and Glasgow can be reached in less than three hours by rail.

Within the town, and its immediate surroundings in Lancashire, is a wide range of industrial and commercial interests, and the headquarters of many firms with national and international reputations. Among the many important industries centred on the town are heavy and precision engineering, the manufacture of aircraft, heavy commercial vehicles and cars, printing presses, chemicals, electrical equipment, synthetic fibres, paper and footwear. On the outskirts is the uranium plant of British Nuclear Fuels, supplying fuel elements for nuclear reactors.

Preston is surrounded by some of the most beautiful open countryside in the North of England. About 15 miles to the west are several fine coastal resorts, the best known of these being Blackpool. Less than 50 miles to the north is the heart of the renowned and beautiful Lake District. The Trough of Bowland and the Bleasdale and Longridge Fells lie nearby, providing rambling facilities in undulating and wooded country.

Preston's new Guild Hall offers a wide variety of entertainments. It houses a modern theatre and regular concerts are given by the Hallé and Royal Liverpool Philharmonic orchestras. Leading artists in the world of popular entertainment also appear frequently.

### **The Preston Campus**

The Polytechnic occupies a site of approximately 9.5 acres close to the main shopping and commercial centre of Preston. An additional area of 25 acres adjacent to the main site is available for future developments. Teaching accommodation is provided in purpose-built premises and rented modern office buildings.

Courses in science and technology are centred in the main Polytechnic building in Corporation Street which also provides accommodation for courses in art and design (other than fine art which is at present based in the Polytechnic's annexe in Lancaster). The central building also contains the Computer Centre, administrative offices, a refectory and the gymnasium.

Situated within easy walking distance of the main building are Marshall House (courses in business studies and accountancy), Livesey House (social studies and management studies) and Robin House (languages and law).

An extensive physical development programme is planned to match the academic growth of the Polytechnic. A Students' Union Building, a new refectory, and residential accommodation for 167 students are now in use and the new library opened in 1978. Work has started on a new Art and Design Building while proposals for a second student residential block were recently approved by the Department of Education and Science.

An early 19th century church at the centre of the campus has been renovated and opened as a Polytechnic Community/Arts Centre.

### **The Poulton-le-Fylde Campus**

The BA (Hons) degree in Humanities is based at the Poulton-le-Fylde Campus in the buildings of the former College of Education.

The Polytechnic Poulton-le-Fylde Campus is situated in an attractive market town about 15 miles west of Preston and about four miles inland from the Fylde coast resorts. Communication is excellent either by road or rail. The M55 Fylde spur motorway links with the M6 at Preston. There are through trains to Blackpool from many parts of the country, which stop at Poulton-le-Fylde.

Poulton-le-Fylde is particularly fortunate in having available a wide range of good student accommodation close to the Campus. The accommodation problems sometimes found by students in large conurbations in other parts of the country have not been experienced in Poulton.

The spacious and well equipped Campus buildings are set in grounds with extensive lawns and gardens. A wide range of sports facilities is available on the site and close at hand.

### **The Chorley Campus**

The major in-service course programme for teachers offered by the Polytechnic School of Education is housed at the Chorley Campus, in the buildings of the former College of Education.

The Polytechnic Chorley Campus is ideally situated for this purpose. Chorley is very easily accessible either by road or by rail from all parts of Lancashire and from the metropolitan boroughs to the south. The Union Street building is close to the town centre and particularly convenient for those travelling by public transport. Woodlands—a new and very attractive building—is very pleasantly situated in the countryside about a mile from the town centre. There is extensive car parking space available and a minibus link with the Union Street building is available at certain hours.

Excellent facilities are available for a wide variety of in-service courses ranging from degree courses to short courses designed to meet special needs. Very well equipped areas relevant to particular aspects of the curriculum of schools provide bases for teachers who wish to seek specialist advice or information in a more informal way.

# Courses

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

## **Degree Courses and the CNAA**

The degree courses offered are mainly 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.

## **Higher National Diploma Courses, TEC and BEC**

Among the full-time courses of less than degree standard the most numerous are the Higher National Diplomas, awarded since the 1920's 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 Technician Educational Council (TEC) and the Business Educational Council (BEC), and a new range of higher diplomas awarded by these bodies 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, e.g. an OND or ONC).

## **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 did not have the necessary minimum entry requirements for a degree course.

## **Post Graduate 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 of Social Workers, the Diploma in Management Studies, and the Diploma for Bilingual Secretaries 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.

## **Transferability between Courses**

Because of the variety of courses in the Polytechnic, transfer between different courses is a possibility and this creates a 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 standard 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 standard 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.

## **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 of 6 months duration) alternate with periods of academic study within the Polytechnic. The sandwich courses in the School of Art and Design are exceptions in that they may include a single 26 week period in industry.

### **Sandwich Course and other Training Placements**

The Polytechnic normally helps the 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 the 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 college. 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 the 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.

# Admission to Courses

## Entry requirements

The normal requirements for admission to full-time and sandwich courses are:

Degree courses (for Degree Courses in —Art and Design please see course information section)	*5 GCE passes in appropriate subjects including 2 'A' levels, or ONC/OND of appropriate standard
Higher National Diploma Courses	*5 GCE passes in appropriate subjects, including 1 'A' level, or ONC/OND

\*IMPORTANT NOTE: In the 'O' level examinations taken in Summer 1975 and subsequently only grades A-C will be accepted as constituting a pass.

For entry to a degree course, students possessing the Scottish Certificate of Education need passes in 5 subjects of which 3 are at the higher grade, or 4 subjects all at the higher grade.

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

## Application

Application for full-time and sandwich courses should be made as early as possible. There is a standard Polytechnic application form for most courses, copies of which can be obtained from the Educational Liaison Officer; the forms, when completed, should be returned to the Academic Registrar. A special procedure applies in the case of certain courses, e.g. degree courses in Art and Design, some Social Work Courses, the Journalists' Course; details of the appropriate procedure are given in the sections dealing with the courses concerned.

It is not necessary to wait until the results of qualifying examinations are known before applying for admission, as provisional places can be offered to suitable applicants pending the publication of examination results. Applicants will normally be invited for personal interview before being considered for acceptance, and wherever possible will be given the opportunity to visit the Polytechnic before accepting the offer of a place.

Where a clearing house system operates the procedure may differ from that normally followed by the Polytechnic. In the case of applications submitted direct to the Polytechnic, however, the following procedures apply.

All applications are acknowledged to the candidates on receipt of the application form by the Polytechnic. The applicants are then advised, usually within a period of four weeks, of

- (i) unconditional acceptance
- (ii) conditional acceptance
- (iii) interview/open day
- (iv) place on waiting list
- (v) rejection

unless further information or references are awaited by the admissions tutors.

If a candidate is interviewed he or she will be informed as soon as possible, and certainly by the 1st August of

- (i) unconditional acceptance
- (ii) conditional acceptance
- (iii) rejection
- (iv) a specific reason for a deferred decision

When the examination results of those applicants with conditional offers are received by the

Polytechnic, the Polytechnic will write making a firm offer, or a rejection, by the 1st September or within 14 days of receipt of the results.

Where possible, candidates should write accepting unconditional offers within seven days of receiving the offer. All applicants who confirm their acceptance of a place on a course will be sent a booklet containing detailed information for new students, during the summer. The information will amplify the general information given at the back of this prospectus and cover such matters as course calendar, induction and enrolment arrangements, maps, Polytechnic regulations, fees, grants, examinations, facilities in the Polytechnic and in the town, insurance, safety, etc.

## Overseas students

The application procedure for overseas students, whether such students are currently living in this country or abroad, is different from that for other students. An application form should be obtained in the usual way, but instead of returning the completed form direct to the Polytechnic the student should forward it for endorsement to the student unit of the office of the High Commissioner (in the case of Commonwealth students) or Embassy (in the case of other overseas students) maintained by his or her Government in London. (Hong Kong students other than those already in the U.K. should return the form through the Education Department, Hong Kong). The form will then be sent on to the Polytechnic for consideration in the normal way. Full details of the application procedure for overseas students, including information on such matters as fees for overseas students, the financial certificate such students are required to produce, the certificate of competence in English and the fees deposit for overseas students are obtainable from the Educational Liaison Officer, and are sent out to all overseas students, together with the application form.

## 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, HND, DipHE and initial Teacher Training courses qualify for mandatory awards whilst grants in most other cases are discretionary. Grants may 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.

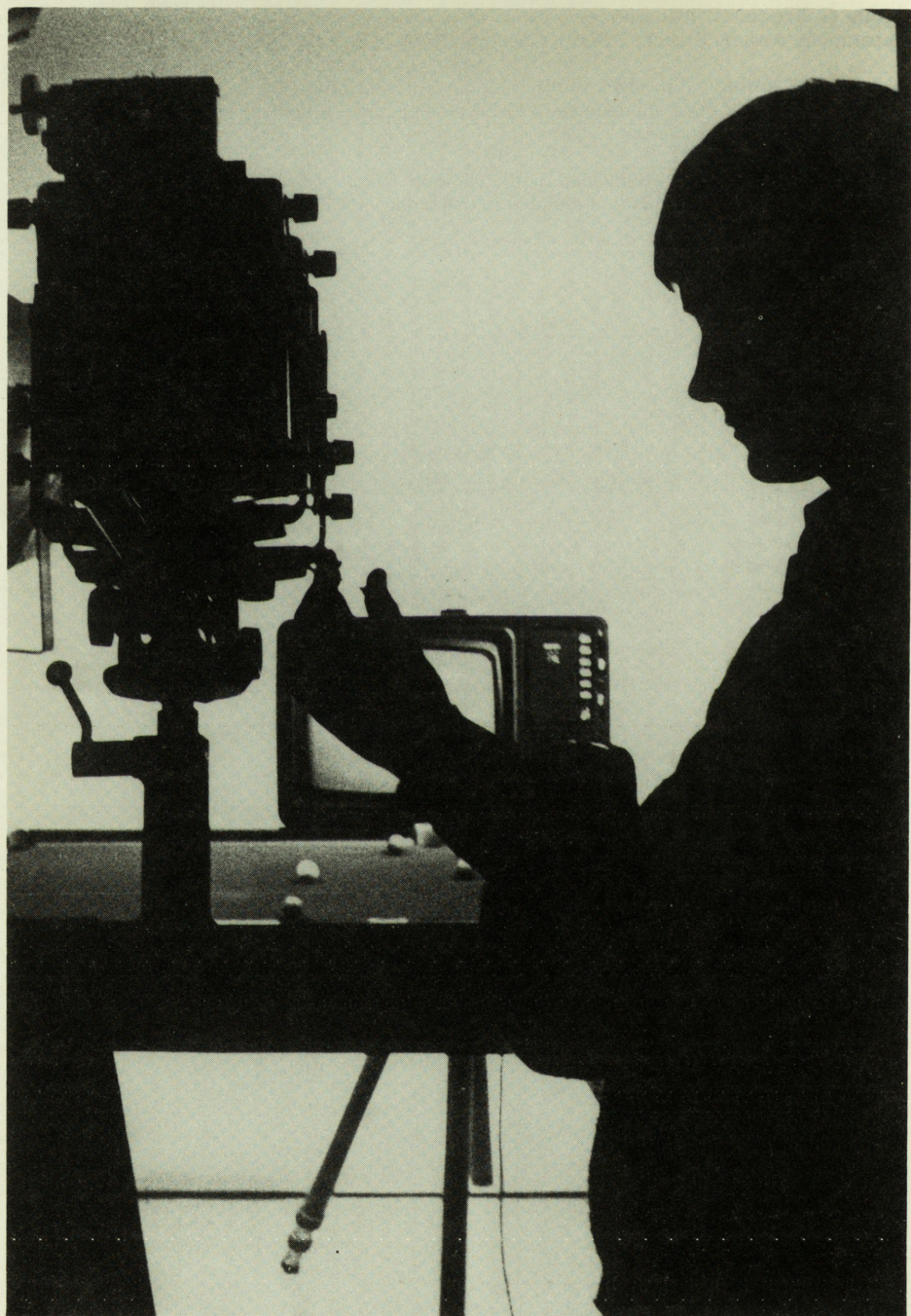
Application for a grant should be made to the Chief Education Officer of the Local Education Authority of the area in which the student lives. Application should be made in good time to ensure that the student's financial situation is clarified before the beginning of the course and students should note that the duty of an Authority to bestow an award is subject to the condition that an 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, 2 South Charlotte Street, Edinburgh EH2 4AP.

**Grants Handbook.** Published by the National Union of Students, 3 Endsleigh Street, London WC1 0DU, price approximately £2.50 plus postage. A particularly useful handbook on discretionary award problems.

**Educational Charities.** Published by the National Union of Students, price 55p including postage. This lists trust funds that are able to make relatively small grants to students in need.



*4th Year graphic design studio*

# Faculty of Art and Design

**Dean of Faculty:**

T. Metcalfe, ARCA, ASIA

**Assistant to the Dean of Faculty**

L. Penrice, ARCA

**Faculty Officer:**

Mrs E. L. Davies, BA

**Courses:**

BA (Hons) in Fashion

BA (Hons) in Fine Art

BA (Hons) in Graphic Design

Specialist Designers' course in Ceramics

Foundation Course in Art and Design

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.

The Faculty offers BA Honours courses in Fashion, Fine Art and Graphic Design, a Foundation Course for students who are not less than 17 years of age on entry, and a Specialist Designers' course in Ceramics. The Faculty has over a number of years established close and fruitful relations with industry, and courses in design (fashion, graphics and ceramics) not only enable students to develop personal creative talents but also lead to a thorough understanding of industrial and commercial processes. 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, for teaching in schools of general education, and for subsequent specialisation in a wide range of activities to which a broad competence in, and understanding of, the visual arts are appropriate. 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.

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

The courses in Fine Art and in Ceramics will be housed mainly in the Storey Institute, Lancaster, for the next three to four years, other courses being housed on the main campus in Preston.

Facilities for travel between the two towns are maintained by the Polytechnic.

The Faculty also offers a wide range of adult non-vocational courses in art and crafts.

#### **Qualifications for entry to full-time courses in the Faculty of Art and Design**

In the selection of students for the course, 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 qualifications.

A student shall not normally be admitted to the course unless he or she will have attained the age of eighteen years by 31st December in the year of entry.

The normal minimum qualifications for entry to the course are:

- (a) a General Certificate of Education with passes in five subjects, including two subjects at Advanced level, or
- (b) a General Certificate of Education with passes in four subjects, including three subjects at Advanced level, or
- (c) a Scottish Certificate of Education with passes in five subjects, of which three are at the Higher Grade, or
- (d) a Scottish Certificate of Education with passes in four subjects, all at the Higher Grade, or
- (e) an Ordinary National Certificate or Diploma at a good standard, or
- (f) 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:
  - i a General Certificate of Education with passes in five subjects at Ordinary level, or
  - ii a General Certificate of Education with passes in four subjects including one at Advanced level, or
  - iii such qualifications as the Council for National Academic Awards considers to be acceptable in lieu of i and ii above, or
- (g) such other qualifications as the Council for National Academic Awards deems to be acceptable in lieu of those specified in (a) to (f) 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 Ordinary Level in the General Certificate of Education. 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 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.

**Admission procedure BA courses only:** Application forms for BA courses in Art and Design only may be obtained from the Art and Design Admissions Registry, Imperial Chambers, 24 Widemarsh Street, Hereford. (**Note:** forms will *not* be supplied directly to

individual applicants who are still at School or College; they are usually issued to Heads of Schools or Colleges in February). Preliminary enquiries may be made directly to the Dean of the Faculty of Art and Design of the Preston Polytechnic.

**Admission Procedure, Foundation and Ceramics Courses:** Standard Polytechnic application forms should be used – see the note on applications on page 9 of this prospectus.

# Fashion

## BA in Fashion

### Course Leader:

Mrs. M. G. Stockdale

A four-year sandwich course leading to BA with Honours. Students spend approximately three months in industry towards the end of the second and third years of the course, gaining about six months of industrial experience overall.

The course enables students to develop a personal design sense as well as a thorough knowledge of the techniques of clothing manufacture and other production and marketing factors. The course also provides a grounding in the perspectives, data and techniques of sociology (which helps students to understand the cultural roots of fashion) and a background in the history, philosophy and appreciation of the visual arts.

The most immediate practical aim of the course is to prepare students for professional designers' roles in the fashion industry, and students are therefore encouraged to develop original creative abilities which are informed by a knowledge and appreciation of the arts and of the role of fashion in society. Equally, students are encouraged and enabled to regard industrial production processes and commercial organisations as the media in which their creative ideas are to be realised.

The many manufacturers in both the dress and the knitwear industries whom we have consulted agree that a sandwich course of this kind is ideally suited to the education of designers intending to work in industry, and a great many organisations have agreed to continue their support by offering industrial training facilities to our students.

From the start of the second year students begin to specialise in design for either knitwear or garments constructed from woven fabrics, though much of the work undertaken is common to both groups. In certain very exceptional circumstances, students' choice between the Knitwear and Woven option at second year stage may have to be restricted. This will only be done in order to avoid students' suffering the disadvantages which would arise if there were excessive numbers in any one group.

### 1st Year

**Curriculum:** fashion design; related design studies; fashion study; sociology; history of art, design and costume; pattern construction; production technology; drawing; visit to London.

**Course duration:** September to July (34 weeks)

**Examinations:** internal

### 2nd Year

**Curriculum:** fashion design; fashion study; sociology; history of art, design and costume; pattern construction; knitting technology; textile technology; business studies; printed textile design; visit to London; industrial visits.

**Course duration:** September to May (27 weeks) (+ 13 weeks in industry)

**Examinations:** internal assessments

### 3rd Year

**Curriculum:** fashion design; millinery; costume jewellery; fashion study; sociology; history of art, design and costume; knitting technology; pattern construction; business studies; visit abroad.

**Course duration:** September to May (27 weeks) (+ 13 weeks in industry)

**Examinations:** Written papers for the final BA examinations and internal assessments.

### 4th Year

**Curriculum:** fashion design; fashion study; business studies; physiology and anatomy; visit to London; dissertation

**Course duration:** September to July (34 weeks)

**Examinations:** Final degree assessment of practical work and dissertation

### Careers in Fashion

During the last decade the United Kingdom has led the way in fashion design, adding a new dimension to the fun of living and enabling all levels of society to enjoy good clothing. 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 is strongly 'design intensive', which means that there are a great many career opportunities for both young men and young women designers which can lead to specialisation in other aspects of the industry such as buying, range co-ordination, and design management, all of which require imagination and an understanding of the fashion industry as a whole.

Manufacturers specialise in a particular type or range of garments, using either mass-production techniques to meet the ever-increasing demands for well-designed but inexpensive clothes, or small-scale production methods to meet the demand for clothes that are considerably more expensive. Equally, a company may specialise in the manufacture of 'young' fashion dresses, knitwear, children's wear, etc., and a designer may choose to specialise in any one of these fields. The fact that the industry is divided into a great many independent units further increases the demand for able designers and for senior staff with a thorough understanding of the industry, including its all-important design aspects.

## Fine Art

### BA in Fine Art

#### **Course Leader:**

A. D. Powell

A three-year full-time course leading to BA (Honours).

Most students will have taken a Foundation course before joining the BA course in Fine Art, though exceptionally talented students may be accepted without this preliminary if they have passed at 'A' level in at least two subjects. Many students will have developed a personal sense

of direction as artists at this stage in their careers and all successful candidates for admission will be motivated towards the study and practice of the visual arts in their many contemporary forms.

The integration of studio and theoretical work is an important aspect of this course, the latter providing a framework for discussion and encouraging analysis of the imaginative and creative work.

Studio work cuts across craft boundaries, and whatever media, crafts and techniques are appropriate to the students' interpretations of the aims of the course are used in making paintings, drawings, prints, sculptures, constructions, films, photographs, etc. The course includes a chronological history of European art from c. 1500, in addition to historical studies more directly related to on-going studio work.

For the uncommitted student who has yet to find a personal line of enquiry, the structure of the course and units of study within it offer a rich stimulus. Projects which explore specific areas lead to a broad understanding of the visual arts while enabling each individual to discover his or her own potential. For the student who wishes to pursue individual lines of enquiry, studio projects offer a stimulating challenge and introduce topics that they might not otherwise consider.

During the second and third years of the course there is an optional scheme of study which enables students to devote approximately 40% of their committed time to History and Theory of Art. The additional studies centre on problems of 20th century art and both support and are supported by the individual student's development as a creative artist. This option is intended to provide, for an important minority of students, an alternative route towards the achievement of excellence in the practice of art while also providing for those students whose eventual interests may be in art history, criticism or appropriate branches of education. For those students who do not wish to take up this option studies in History and Theory of Art occupy approximately 20% of the curriculum.

### **1st Year Studies**

Approximately 80% of the curriculum is devoted to studio work and 20% to History and Theory of Art. Studio work includes: Drawing; workshop practice which enables students to acquire basic skills in still photography, ciné-photography, point making and three-dimensional techniques; and creative projects in two- and three-dimensional work.

**Course duration:** September to July (34 weeks)

**Examinations:** internal

### **2nd and 3rd Year Studies**

Studio staff and lecturers in the history and theory of art help and advise students to formulate programmes of work which meet each individual's creative and intellectual needs. Optional classes are offered in particular skills, eg. in sculpture, painting and photo-ciné.

**Course duration:** September to July

**Examinations:** Internal assessments in the second year. Final BA submissions in the third year.

# Graphic Design

## BA in Graphic Design

### *Course Leader:*

G. F. Hollingworth

A four-year sandwich course leading to the award of a BA with Honours. Students spend approximately 10 terms in the Polytechnic and 6 months in industry during the four years of the course. The period of industrial training occurs between the third and fourth years of the college course, and students are paid wages roughly equal to the weekly value of a major award or grant. The Faculty of Art & Design 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 organisation. Students therefore select one or other of two options, each of which enables them to acquire expertise in a particular professional field. A common philosophy, and the fact that much of the work is common to all students, makes it possible for successful students to move freely within the industry as a whole, particularly after some years of practical experience.

**Option A (General Graphic Design)** is 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 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.

**Options B (Three-dimensional Graphics)** is intended 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 to projects under the general control of architects and interior designers. The option enables students to make effective use of structural and other 'three-dimensional' materials. A detailed study in the design of folding box-board cartons provides a vehicle for the study of basic structural principles, as well as introducing students to card as one of the most widely used packaging and display materials.

The aim of the course is to ensure that students acquire the capacity to analyse visual communication problems and propose imaginative solutions which acknowledge technical restraints, whilst making creative use of traditional and newly-discovered technical possibilities. Students acquire a sufficiently thorough grasp of current techniques, and the principles that underlie them, for new developments to be understood and used with confidence. At the same time, students gain an understanding of the nature of the organisational framework within which they must work, and appreciate the motives and methods of business organisations. 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.

### **1st Year**

**Curriculum:** introduction to graphic design; typographic design and practical typography; three-dimensional design; photography; preparation of art work; production technology; psychology; history of art; theory of art and design; history of design; history of graphics.

**Course duration:** September to July (34 weeks)

**Examinations:** Internal

### **2nd Year**

**Curriculum:** design; typography; production technology; history of art; theory of art and design; history of design; history of graphics.

**Course duration:** September to July (34 weeks)

**Examinations:** Internal

### **3rd Year**

**Curriculum:** design, photography; marketing and professional practice; history of art; theory of art and design; history of design; history of graphics

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

**Examinations:** written papers for the final BA examination.

### **4th Year**

**Curriculum:** design, dissertation.

**Course duration:** October to July (29 weeks)

**Examinations:** 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 promotions and training departments of private and nationalised industries, in film and television studios, in government departments and in 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 a 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.

## Ceramics

### **Specialist Designers' Course in Ceramics**

#### **Course Leader:**

E. W. Teasdale

This is a three-year full-time course for students interested in a professional career in ceramics.

The course includes the study of both studio and industrial design and production and leads to

Diploma Membership of the Society of Industrial Artists and Designers and Licentiatehip of the Society of Designer-Craftsmen.

The emphasis is on acquiring practical knowledge of and skill in ceramics, though the technology and application of other materials is seen as an important element of the course. Students are encouraged to develop original, creative abilities which can find expression in both the decorative and the functional aspects of design, facilities being available to carry out a large proportion of this work to the prototype stage.

**Qualifications for entry:** applicants must normally have obtained five passes at 'O' level in the General Certificate of Education (or their equivalent) and must be 17 years of age on the 1st October of the year of entry.

Students who have completed a Foundation Course are invited to apply for entry to the second year of the course.

### **1st Year**

**Curriculum:** Technical and freehand drawing; three-dimensional design and workshop practice; decorative design and workshop practice; history of design; visits.

**Course duration:** September to July (34 weeks)

**Examinations:** Internal

### **2nd Year**

**Curriculum:** Three-dimensional design and workshop practice; decorative design and workshop practice; materials and production technology; drawing; history of design; visits.

**Course duration:** September to July (34 weeks)

**Examinations:** Internal

### **3rd Year**

**Curriculum:** Major design projects; professional practice; dissertation.

**Course duration:** September to July (34 weeks)

**Examinations:** Internal and external assessment for Diploma Membership of the S.I.A.D. and Licentiatehip of the S.D.C.

### **Careers in Ceramic Design**

In the last twenty years the majority of industrial ceramic manufacturers have become increasingly fashion orientated to keep in touch with the changing vogue of the times. A very large percentage of all British Ceramics is produced for export, and it is therefore essential that the quality, style and price of these products be competitive, not only with other British industrial ceramic manufacturers but also with ceramic manufacturers abroad.

The major British industrial ceramic manufacturing companies rely to a great extent on their design teams and sales divisions to maintain a strong position in overseas and home markets. This is achieved by the constant injection into the industry of intelligent people with good design potential. They are employed as designers, design assistants or in the sales division for the creation of ideas in terms of shape and decoration or new marketing outlets for the companies' products. Students completing the specialist designers course who have an affinity with industrial ceramic design can obtain posts in industrial ceramic manufacturing companies or ceramic design agencies as designers, design assistants or in the sales division.

An increasing number of small firms are being established in Britain to produce ceramics by

hand and semi-industrial processes and employ small numbers of designer-craftsmen for this purpose. Students completing the specialist design course who have an affinity with studio ceramic design can obtain posts in firms of this kind, but often with a view to establishing businesses of their own in the future.

In addition to professions concerned solely with ceramics, those students pursuing more general design studies may consider careers in product manufacturing industries using plastic, metal, wood and other materials.

**Note:** Students normally resident outside the boundaries of Lancashire must obtain permits from their own Local Education Authorities before they can be enrolled for the Specialist Designers Course. They are advised to consult their Local Education Offices before making application.

## Foundation Studies

### Foundation Course in Art and Design

#### *Course Leader:*

E. Holmes

A one year full-time course which provides a basic education in the practice, history and philosophy of art and design for (a) students wishing to proceed to advanced specialist courses in one or other of the various branches of design for industry, or (b) those wishing to pursue courses leading to honours degrees in Art or Design.

**Qualifications for entry:** Please see page 14 of this prospectus. Applications should be made before 1st April of the year of entry.

**Curriculum:** Drawing, painting, visual perception and the use of colour. Opportunities are provided for work in a number of areas selected by each student from the following: Printmaking, Graphic Design, Product Design, Ceramics, Photography. All students take a course in history and appreciation of Art and Design and are expected to take part in residential visits away from college.

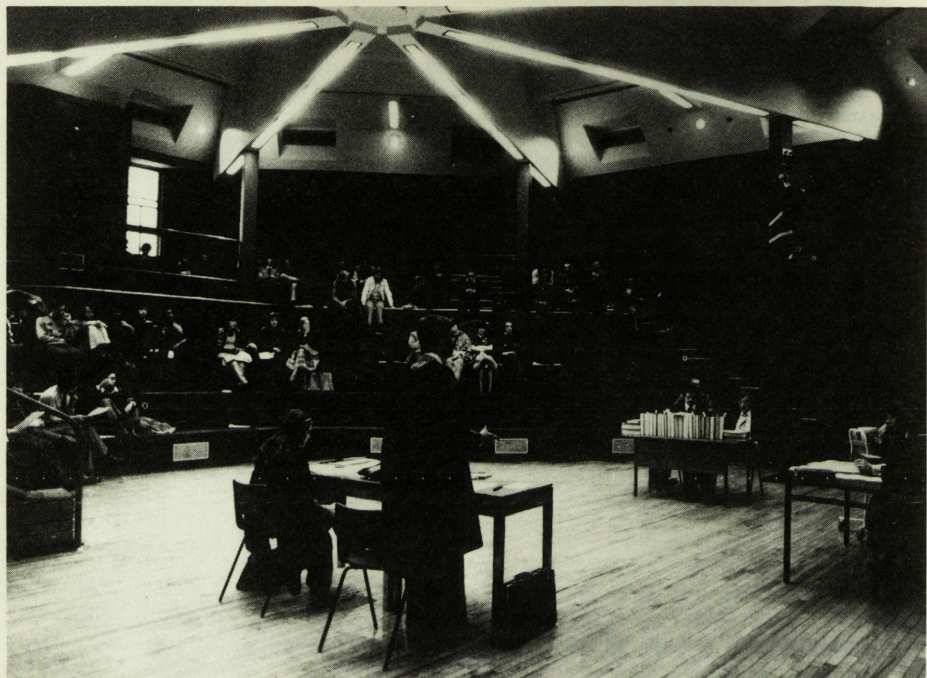
**Course duration:** September to July (34 weeks)

Students are expected to attend for one week in June prior to the course which commences in September.

#### **Entry to Advanced Courses from the Foundation Course**

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 student's individual needs.

**Note:** Students normally resident outside the boundaries of Lancashire must obtain permits from their own Local Education Authorities before they can be enrolled for this course. They are therefore advised to consult their Local Education Offices before making an application.



Law conference



Business studies

# Faculty of Business and Management

## **Dean of Faculty:**

B. G. Booth, BA (Econ), MTech, FSS

## **Faculty Officer:**

To be appointed

## **Courses:**

BA (Hons) in Accounting

Foundation Course in Accountancy

Graduate Conversion Course in Accountancy

BA (Hons) in Business Studies

BEC Higher National Diploma

BA (Hons) in Law

Diploma in Management Studies

Institution of Works Managers Certificate in Industrial Management

## **The Faculty of Business and Management**

The Faculty offers a wide range of full-time, sandwich, block-release, part-time and short courses.

The courses lead to qualifications in business studies, management, public administration, the professions and to degrees in Accounting, Business Studies and Law. The courses are the responsibility of the four schools within the Faculty:

School of Accounting and Finance

School of Economics and Business Studies

School of Law

School of Management Studies

Students are drawn from a wide area and on completing their course have attractive career opportunities ahead of them.

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 Faculty offices together with the School of Accounting and Finance and the School of Economics and Business Studies are located in Marshall House (Tel. 23111), the School of Law in Robin House (Tel. 21513) and the School of Management Studies in Livesey House (Tel. 59477).

# School of Accounting and Finance

## **Head of School:**

R. W. Wallis, B.Com., IPFA

## **BA (Hons) in Accounting**

### **Course Leader:**

M. H. C. Lunt

A three-year full-time course validated by the CNAA 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. It provides a distinctive treatment of the human aspects of accounting and financial control. 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:

- i a General Certificate of Education with passes in five subjects, including two subjects at Advanced Level and Ordinary Level passes in Mathematics and English Language.
- ii a General Certificate of Education with passes in four subjects, including three subjects at Advanced Level and Ordinary Level passes in Mathematics and English Language.
- iii a good standard of pass in the Ordinary 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 or other similar qualification may be permitted to enter the second year of the course.

### **Curriculum:**

Year 1 – Accounting, Economics I, Quantitative Methods, Introduction to Computing, Sociology of Industrial Societies, Law.

Year 2 – Financial Accounting I, Management Accounting and Control Systems I, Economics II, Quantitative Analysis and Computing, Organisation Theory, Law of Business Organisations.

The emphasis given to different subjects in Years 1 and 2 differs, e.g. Introduction to Computing in Year 1 covers only one term, but all are compulsory.

Year 3 – Four core subjects are compulsory – Financial Accounting II, Management Accounting and Control Systems II, Financial Management, Behavioural and Social Aspects of Accounting.

Two further subjects are selected from the following options – International Accounting, Public Sector Accounting, Theory and Practice of Taxation, Auditing, Economic Planning and Forecasting, EEC Law and Business Organisations.

**Examinations:** The examinations are internally set and externally assessed. Examinations are held at the end of each year of the course. Academic progress throughout the course is monitored by means of specific coursework assignments, performance in which contributes to the final degree classification.

**Exemptions:** The degree gives exemption from certain examinations of the major professional accountancy bodies.

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

## **Foundation Course in Accountancy**

### **Course Leader:**

H. Warburton

This is a one year full-time course aiming to provide a sound and appropriate education 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, organisational and social 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 accounting, book-keeping and computer programming 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. Alternatively, the successful student has the opportunity to join the second academic year of a degree course in accounting or business studies.

**Qualifications for entry:** Applicants should normally be not less than eighteen years of age on the 1st September of the year of entry, and hold the GCE in at least five subjects, including both English Language and Mathematics. Two of the five subjects must be at advanced level. 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, PO Box 433, Chartered Accountants' Hall, Moorgate Place, London EC2P 2BJ.

The Chartered Institute of Public Finance and Accountancy, 1 Buckingham Place, London SW1E 6HS.

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

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

**Curriculum:** Accounting, framework of financial control (computer studies, financial control and organisational behaviour), economics, law, and quantitative methods.

**Course duration:** September to June – (33 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:*

M. J. English

A one term, full-time course providing exemption for 'non-relevant' graduates from the Foundation examinations of the professional accountancy bodies.

The course is approved by the major professional accountancy bodies.

### *Qualifications for entry:*

- i a degree of any University of the United Kingdom or Republic of Ireland.
- ii a degree awarded by the Council for National Academic Awards.

**Curriculum:** Accounting, Economics, Quantitative Methods, Law.

**Course duration:** September to December (12 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. Freelance lecturing and financial journalism are also possibilities.

**Overseas:** The EEC and Commonwealth countries, as well as other developed and developing countries provide expanding opportunities for financial and accounting specialists.

# School of Economics and Business Studies

## **Head of School:**

Professor F. Livesey, BA (Econ)

## **BA (Hons) in Business Studies**

### **Course Leader:**

P. Hewitt

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 extends over five terms and Part II over four 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 commercial and industrial enterprises. In Part II students specialise in one of four areas: Marketing Studies, Labour Studies, Finance Studies, or Decision Studies. Each of these specialisations provides an in-depth study of a major area of business operation and will equip students well for a career in these or related areas. Throughout the course students take part in business seminars which serve to integrate the subjects studied in a practical business context. 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:

- i a General Certificate of Education with passes in five subjects, including two subjects at Advanced Level and Ordinary Level passes in Mathematics and English Language.
- ii a General Certificate of Education with passes in four subjects, including three subjects at Advanced Level and Ordinary Level passes in Mathematics and English Language.
- iii a good standard of pass in the Ordinary 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 or other similar qualification may be permitted to enter the second year of the course.

### **Curriculum:**

Part I – Economics, Quantitative Analysis, Accountancy, Law, Behavioural Studies. In addition students attend a programme of Business Seminars.

Part II – Students present a project and can specialise in one of four areas.

**Marketing Studies** – Marketing Analysis and Decision Making, Marketing Economics, Marketing Research and Information Systems, Buyer Behaviour, Legal and Social Constraints on Marketing Action.

**Labour Studies** – Industrial Relations, Labour Economics, Behaviour in Organisations, Legal Aspects of Labour, Manpower Planning.

Finance Studies – Business Finance, Financial Information and Control Systems, Behavioural and Social Aspects of Business Finance, Monetary Economics, Law of Corporate Finance.

Decision Studies – Business Statistics, Decision Economics, Business Planning, Decision Behaviour, Operational Research.

It is not necessary for the student to decide which specialisation he/she wishes to take until the Industrial Training period is completed. His/her choice, may therefore, be made on the basis of his/her own experience.

The course will consist of lectures, seminars, tutorials, practical exercises and case studies.

**Examinations:** The examinations are internally set and externally assessed. Examinations are held at the end of Year 1 and at the end of Year 4.

**Careers:** For career opportunities see the end of the Economics and Business Studies section.

## **BEC – Higher National Diploma**

### **Course Leader:**

V. J. Seddon

The Diploma is validated by the Business Education Council (BEC) and is awarded on completion of one of two schemes:

- i **Full time** – A two-year full-time course of study followed by satisfactory completion of one year's suitable business experience.
- ii **Sandwich** – A three-year course with the first and third years spent in the Polytechnic and the second year in industry.

The content of the two years in the Polytechnic is the same for both schemes.

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.

The award of the Diploma will be based on performance in examinations and course work assignments under the BEC regulations.

**Qualifications for entry:** Candidates must (1) be not less than 18 years of age, (2) hold the General Certificate of Education at 'O' level in English and in three other subjects, and (3) hold the General Certificate of Education at 'A' level in at least one subject, or hold a good standard Ordinary National Diploma or Certificate in Business Studies. Students wishing to study languages options should hold a General Certificate of Education 'A' level pass in a language.

BEC has four Boards (B1 – Business Studies, B2 – Financial Sector Studies, B3 – Distribution Studies and B4 – Public Administration and Public Sector Studies) and the Polytechnic offers courses under Boards B1, B2 and B4.

The Polytechnic intends, subject to BEC validation, to offer the following curriculum:

**First (academic) Year** (students take 6 modules)

B1- The Business and Its Environment I, Organisation Studies, Financial Analysis I, Quantitative Analysis I, and either Business Law I, Data Processing or Language A (1), Language B (1) or Shorthand and Typewriting I (Double Module)

B2- The Business and Its Environment I, Organisation Studies, Financial Analysis I, Quantitative Analysis I, Business Law 1, Data Processing

B4- The Business and Its Environment I, Organisation Studies, Policy Making and Administration, Local Government, Politics, Behavioural Studies.

**Second (academic) Year** (students take 6 modules)

B1- The Business and Its Environment II, People and Organisations together with 4 option modules from a specialist group—  
Personnel – Personnel Administration, Industrial Relations, Manpower Studies, Labour Law  
Marketing – Marketing Analysis, Buyer Behaviour, Market Research, Marketing Communications  
Management Services – Management Services, Productivity Services, Personnel Administration, Industrial Relations  
Purchasing – Purchasing, Marketing Analysis, Marketing Communications, Business Law II  
Languages – Languages A II, Languages B II, Marketing Analysis, Britain and the European Communities  
Secretarial Studies – Shorthand and Typewriting II (Double Module), Office Administration, Executive Secretarial Practice.

B2- The Business and Its Environment II, People and Organisations, Financial Analysis II together with 3 option modules from a specialist group –  
Accounting – Costing, Business Law II, Quantitative Analysis II  
Company Administration – Office Administration, Business Law II, Management Services

B4- The Business and Its Environment II, People and Organisations, Social Policy and Administration, Public Service Administration, Policy Analysis, Britain and the European Communities.

**Note:** A Work Experience module will be available to all full-time students.

The course will consist of lectures, seminars, tutorials, practical exercises and case studies.

**Examinations:** Examinations are held at the end of each year in the Polytechnic. The examinations are internally set and externally assessed.

### **Careers in Business or Public Administration**

Careers in business include General Business Administration or the specialised fields of Finance, Accountancy, Marketing, Banking, Company Secretaryship, Exporting, Insurance, Local Government, Industrial Relations and similar interests.

Posts cover both private and public sectors. The demand for trained personnel in these fields is buoyant and the holders of an Honours Degree or Diploma in Business Studies should be able to find employment soon after qualification at attractive salaries.

Possession of an Honours Degree 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 exemption on a subject basis from the examination of the major professional associations concerned with Accountancy, Banking, Insurance, Marketing, Transport, Company Secretaryship, Work Management, Personnel Management.

# School of Law

## **Head of School:**

Mrs P. A. Thomas, LL.B., LL.M.

## **BA (Hons) in Law**

### **Course Leader:**

To be appointed

A three-year full-time degree course validated by the Council for National Academic Awards leading to the award of BA with Honours 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.

In the first year students are introduced to the legal process not only by lectures and seminars but by visits to the 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, no fewer than thirteen 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 subjects.

An opportunity is also provided for the study of the social and interdisciplinary aspects of the law in such subjects as the sociology of the legal process and deviancy; while students with a particular taste for field work and research may opt to do a supervised project in the third year.

**Qualifications for entry:** The normal minimum entry qualifications are one of the following:

- i a General Certificate of Education with passes in five subjects, including two subjects at Advanced Level and an Ordinary Level pass in English Language.
- ii a General Certificate of Education with passes in four subjects including three subjects at Advanced Level and an Ordinary Level pass in English Language.
- iii a good standard of pass in the Ordinary 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.

### **Curriculum:**

First Year – Constitutional Law, Law of Contract, Law of Torts, English Legal System, and Legal Methods.

Second Year – Criminal Law, Equity, Land Law, either Politics and the Law or the Sociology of the Legal Process, and either Law of Consumer Protection or Labour Law.

Third Year – A choice of five from Law of Consumer Protection, Labour Law, Administration and the Law, Company Law, Conflict of Laws, Law of Conveyancing, Deviant Behaviour, English Legal History, Law of Evidence, Family Law, Public International Law, Revenue Law, Jurisprudence and a project.

**Examinations:** Examinations are held at the end of each year, and are internally set and externally assessed.

**Professional Exemption**

The degree qualifies for exemption from Part I of the professional examinations of the Law Society (solicitors) and the Council for Legal Education (barristers).

# School of Management Studies

## ***Head of School:***

To be appointed

## **Diploma in Management Studies**

### ***Course Leader:***

Dr. A. S. Roberts

The Diploma in Management Studies is a post-graduate/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 8 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 the satisfactory performance in stage one – assessment is based on both course work and written examinations.

### ***Curricula:***

#### **DMS General**

Stage I (10 weeks): Fundamentals of Management; Organisational Studies; The Economic and Legal Environment; Quantitative Methods; Operations Management; Finance and Accounting.

Stage II (20 weeks): Manpower and Organisation Studies; Marketing and Business Policy; Operational Research and Financial Control.

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.

#### **DMS (Management for Industrial Production)**

Students with an acceptable technical qualification (normally a degree in engineering, science or technology) may elect to take an option in Management for Industrial Production. The curriculum for Stage I, except for minor modifications, is the same as that for the DMS (General) outlined above. In Stage II, students taking the Production option follow a course covering Manufacturing Policy and the Management of Technology. These are taught largely through the vehicle of case studies, which account for about 25% of the Stage II course. Separate examinations are held in these subjects. Other examinations (e.g. Manpower Studies, Operational Research and Financial Control) are the same as for the Stage II (General) course. Students taking the Production option are required to carry out a project closely related to their specialist area.

The conditions governing the award of both Diplomas are the same (see above under DMS General).

**Qualifications for entry:** For entry to Stage I of the DMS (General), a student must hold either:

- i a degree of a British University or the CNAA
- ii a Higher National Diploma or Higher National Certificate
- iii an appropriate grade of membership of a professional body approved by the CNAA for this purpose; or
- iv another acceptable qualification of equivalent standard.

Students should be at least 23 years of age before commencing Stage I. Students of 27 years or over without the above qualifications, but with at least four years' practical 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.

For entry to Stage I of the DMS (Management for Industrial Production), students must normally hold a degree of a British University or the CNAA in an appropriate engineering or science-based discipline. In exceptional cases, students without a degree, but with a record of high industrial achievement, may be admitted. The minimum age for entry at Stage I is 23 years.

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 (AMBIM).

### **Institution of Works Managers Certificate in Industrial Management**

#### **Course Tutor:**

W. E. Illston

**Course duration:** 15 weeks full-time study.

**Curriculum:** The course objective is to provide the student with fundamental knowledge of concepts and techniques of industrial management and generate an awareness of the factors involved in the decision making process.

**Subjects:** The subject matter covers five areas of study; Production Analysis, Organisation Analysis, Quantitative Analysis, Behavioural Analysis, Economic Analysis.

**Qualifications for entry:** Although prescribed pre-entry qualifications are not considered essential to those with suitable management experience, all candidates must have an adequate command of English and a reasonable knowledge of Mathematics. Candidates wishing to complete the whole course with a view to obtaining the Certificate in Industrial Management will need to satisfy the entry requirements laid down by the Institution of Works Managers (eg ONC; CGLI or appropriate experience). Students should consult the Course Tutor on this subject as soon as possible.

This course has the approval of the Training Services Agency and therefore financial support is available under the Training Opportunities Scheme.



*Engineering drawing*

# Faculty of Science and Technology

## **Dean of Faculty:**

J. J. Betts, BSc, PhD (Cantab), PhD (Birm),  
CChem, FRIC

## **Faculty Officer:**

Miss R. Marquet, BA

## **Course**

BSc Hons and BSc in Combined Sciences  
(Astronomy, Biology, Chemistry,  
Mathematical Sciences, Physics and  
Psychology).

Graduate Membership of the Royal Institute  
of Chemistry

Graduateship of the Institute of Physics

BSc Hons and BSc in Electrical and  
Electronic Engineering

Council of Engineering Institutions, Part II  
(Electrical),  
Associate Membership of the Institution of  
Electrical Engineers,  
Graduate Membership of the Institution of  
Electronic and Radio Engineers

Institute of Quantity Surveyors: Final and  
Direct Final Examination (subject to DES  
approval)

Polytechnic Certificate in Advanced Studies  
in Design and Manufacture

BSc Hons and BSc in Mechanical  
Engineering

Polytechnic Diploma in Building Management  
and Economics

TEC Higher Diploma in Physical Science  
(Chemistry)

Higher National Diploma in Physics

Higher National Diploma in Applied Biology

TEC Higher Diploma in Building Studies

Higher National Diploma in Electrical and  
Electronic Engineering

TEC Higher Diploma in Electrical and  
Electronic Engineering

Higher National Diploma in Mechanical  
Engineering (including Industrial Design  
Option)

Higher National Diploma in Production  
Engineering

TEC Higher Diploma in Production  
Engineering

Polytechnic Certificate of Advanced studies in  
Astronomy

### **The Faculty of Science and Technology**

Science and technology have given man a means of understanding and of manipulating the world around him. Together they have achieved a remarkable transformation from a disease ridden society in which life was 'nasty, brutish and short' to a society in which good health, a high standard of living and opportunities for leisure are regarded as the rights of everyone. Scientists and technologists will continue to be needed in large numbers to play their part in achieving new ideals and in tackling problems which are constantly generated in a dynamic and evolving society.

Studies in science and technology are creative and compelling, requiring imagination, speculation, logical consistency, and experimentation. An increasing number of students accept their science or technology education as basic and enter other professions in which their acquired intellectual skills are valued. This means that there is a wide range of job opportunities open to the scientific or technologically qualified, and it is possible to keep one's career options open after qualifying.

The laboratories of Divisions supporting the courses are well equipped with a wide range of sophisticated instruments and machines and students are given a good education in modern professional practice. In later years of most courses the student undertakes a project in close collaboration with staff actively engaged in research and consultancy work.

The Faculty of Science and Technology offers a range of courses which should enable any student, no matter what his or her qualification might be, to achieve maximum development of his or her potential ability. There are graduate level courses and diploma courses. There are courses with minimum entry qualifications of only one GCE Advanced level or TEC Certificate or Diploma and there are other courses with entry qualifications of two or three Advanced levels, or a good TEC Certificate or Diploma. Some courses are full-time and other are sandwich courses involving periods in college and periods in industry. There are courses entailing multidisciplinary as well as monodisciplinary studies. We hope you will find at Preston the course you are seeking.

# School of Sciences

## **Head of School:**

A. M. Short, BSc, PhD, FInstMC, FInstP

## **Heads of Division:**

Biology – M. Edmunds, BA, D.Phil

Chemistry – D. Brattan, BSc, PhD, CChem, MRIC

Physics – A. Christy, BSc, PhD, MInstP

## **BSc and BSc (Hons) in Combined Sciences**

### **Course Leader:**

Mr. J. S. Moorman

The School offers a three-year full-time course leading to a two-subject degree. The subjects offered are:—Astronomy, Biology, Chemistry, Mathematical Sciences, Physics and Psychology. The course is structured on a modular principle allowing a flexible system of study which enables students to pursue their interests at a pace matching their developing abilities.

The modules of the programmes of study are selected by students under the guidance of Academic Counsellors.

**Qualifications for entry:** applicants must meet one of the following general entrance requirements:

- (a) GCE passes in at least five subjects including two at Advanced level. The subjects passed must include a mathematical subject at GCE Ordinary level or above and a science or mathematical subject at GCE Advanced level.
- (b) GCE passes in at least four subjects including three at Advanced level. The subjects passed must include a mathematical subject at GCE Ordinary level or above and a science or mathematical subject at GCE Advanced level.
- (c) A good ONC/OND or TEC Certificate/Diploma in Science, Engineering or Technology.

There are subject entry conditions association with some of the first year subjects. These are set down in detail in the course leaflet, obtainable from the Polytechnic Educational Liaison Officer.

### **1st Year**

**Curriculum:** students undertake 12 modules of study including the compulsory modules in the two subjects selected for study and at least one complementary study module the list of which is given in the course information for years 2 and 3.

#### **Astronomy**

Astronomy I (triple module).

#### **Biology**

Cell Biology (double module), Diversity of Life.

#### **Chemistry**

Chemistry I (triple module), Population and the Environment.

### **Mathematical Sciences**

Statistics Computing, Mathematics I (double module).

### **Physics**

Physics I (triple module).

### **Psychology**

Introduction to Psychology (triple module).

**Course duration:** September to July (33 weeks)

**Examinations:** Generally at the end of session, but in some cases at Christmas and/or Easter.

### **2nd and 3rd Years**

**Curriculum:** Students select 9-12 units per year, according to progress, predominantly from two of the subjects listed below. In the second year all students take two complementary study modules.

#### **Astronomy**

Astronomy II, (triple module), Advanced Observational Astronomy, Planetary Astronomy, Stellar Atmospheres, Stellar Structure, Interstellar Medium, Solar Physics, Celestial Mechanics, Structure and Dynamics of the Galaxy, Stellar Variability.

#### **Biology**

Biology II (triple module) Principles of Ecology, Ecology and Evolution, Genetics, Plant Physiology, Immunology, Biochemical Genetics, Microbial Nutrition and Growth, Mycology, Bacteriology, Enzymology and Energetics, Metabolism, Mammalian Physiology I, II and III, Population and Community Ecology, Ecology of Ecosystems.

#### **Chemistry**

Chemistry II (triple module), Chemistry III (triple module), Pollution Studies I and II, Heterocyclic Chemistry, Analytical Chemistry I and II, Industrial Chemistry, Natural Products, Structure and Functions of Biological Macromolecules, Aspects of Advanced Physical Chemistry, Organometallic Chemistry.

#### **Mathematical Sciences**

Mathematical Sciences II (triple module), Mathematical Methods I and II, Analysis I and II, Computer Systems, Algebra I and II, Computer Organisation and Assembly Language, Multivariate Analysis, Operating Systems, Numerical Analysis II, Probability Theory, Languages and Language Processors.

#### **Physics**

Physics II (triple module), Physics III (triple module), Electronics I (Devices and Circuits), Sonics, Electronics II (Instrumentation), Atomic and Molecular Physics, Low Temperature Physics, Radiation Physics, Applied Acoustics.

#### **Psychology**

Experimental Psychology (triple module), Psychological Statistics, Physiological Psychology, Personality and Abnormal Psychology, Developmental Psychology, Social Psychology I and II, Language and Thought, Advanced Physiological Psychology, Applied Experimental Psychology, Biological Control Systems.

#### **Complementary Study Modules**

The Framework of Science, Science as a Social Institution, Politics and Environment, Scientific Method, Information Science, Music in 20th Century Society, Battle Against Infectious Disease, Art in the 20th Century, Man and the Environment, History of Science.

Each honours student undertakes work on a project and submits a report on the work. The project is rated equivalent to two modules.

**Course duration:** September to July (33 weeks)

**Examinations:** Generally at the end of session, internal with external examiners.

**Qualifications:** will be those of the Council for National Academic Awards.

Bachelor of Science. Passes in not less than 18 second and third year modules.

Bachelor of Science with Honours. Passes in not less than 22 second and third year modules including (i) 8 Level III modules and (ii) the project.

### **Careers in the Sciences**

Although in professional practice there is a trend towards a greater degree of specialisation, many of the specialist fields require knowledge of more than one conventional discipline. In this respect the Combined Sciences Course which is a study in depth of two major disciplines is compatible with modern demands of the scientific industries and Government Service. Furthermore the study of two major subjects extends the spectrum of job opportunities.

Specific career opportunities will be determined by the main subjects studied. Since there will be over twenty possible combinations it is more practicable to list careers associated with each subject rather than those of each subject combination.

**Astronomy:** Job opportunities in astronomy are normally associated with astronomical and meteorological stations of H.M. Government, Universities and Polytechnics. The astronomy course includes the application of physical principles to galactic processes. The study enhances the student's grasp of investigations of problems in physics and familiarises him or her with much of the instrumentation involved. Such studies also equip the student for courses in Physics.

**Biology:** Demands for industrial Biologists arise from industries manufacturing agricultural, pharmaceutical, medical and veterinary products and from the processing industries, eg foods, drink, wool, cotton and leather industries. There are also opportunities in hospitals and research establishments. The jobs involved may include research, development, production and quality control, technical sales' testing and administration.

**Chemistry:** Many industrial chemists are employed in firms connected with making chemicals, polymers, pharmaceuticals and cosmetics, and with processing petrochemicals and foodstuffs. Chemists are also employed in the Civil Service, nationalised industries, research associations and Local Authorities. The work includes production, analytical control, research and development, marketing, sales, personnel and general management.

**Mathematical Sciences:** Career prospects are good in private and nationalised industries and the Civil Service. Work in mathematical sciences includes (i) technology, (ii) management servicing including statistics, forecasting, and operational research, and (iii) computer application including programming, systems analysis and logic design.

**Physics:** Physicists are employed in electronics and communications industries, in instrument manufacture and servicing, including the complex automation systems currently under development and operation. They are also employed in Government research associations, in nuclear industries, in the hospital service, in the aircraft industries, and as material scientists in engineering industries. Many physicists are employed in technical sales and general management.

**Psychology:** The type of work undertaken by psychologists includes: (i) occupational psychology which involves vocational guidance, training, rehabilitation, personnel selection; (ii) educational psychology which involves assessment of intellectual and personality characteristics of school children and studies on children with abnormal abilities or difficulties; (iii) clinical psychology which includes assisting with diagnosis and certain types of treatment

and rehabilitation. Psychologists are employed in industry and commerce, in Government and Local Authority Service and in the National Health Service.

**Graduate Membership of the Royal Institute of Chemistry (four year sandwich course) and TEC Higher Diploma in Physical Science (Chemistry), (three year sandwich course).**

**Course Leader:**

Dr. J. W. Dodd

A Polytechnic based sandwich course. Industrial training is introduced in the second half of the first and second years. Students wishing to proceed to GradRIC examinations will be required to pass *either* mathematics and physics TEC units *or* GCE Advanced level mathematics and physics. Continuous assessment and examinations are introduced during each unit and on completion of the unit the student is awarded a pass with merit, or a pass, or a fail. A TEC Higher Certificate (10 units) and/or a TEC Higher Diploma (20–25 units) is awarded on passing the specified number and types of units. At the end of the third year, students may sit the Part I examination of the Graduateship of the Royal Institute of Chemistry. Units in advanced analytical chemistry, taken within the Higher Diploma, are offered. Success in the Higher Diploma (including advanced analytical chemistry units) or success in the Grad. R.I.C. Part I examination may qualify a student for admission to the Licentiatehip of the Royal Institute of Chemistry. The Part II of these examinations, success in which gives the academic qualification for admission to Corporate Membership of the Royal Institute of Chemistry, is taken at the end of the fourth year.

**Qualifications for entry:** GCE 'O' level passes (Grade C) in English language, mathematics and *either* two science subjects and one arts subject *or* two arts subjects and one science subject, together with *either* a GCE 'A' level pass in chemistry with evidence that mathematics and physics have been studied to a standard one year beyond the 'O' level syllabus; *or* an Ordinary National Certificate in Science with a pass in elective Chemistry or a TEC Certificate in Sciences with studies in Chemistry and Laboratory Techniques at Level III and studies in Mathematics and Physics at Level II. Other combination of entry qualifications may be acceptable; the Course leader should be consulted. Success in Polytechnic examinations taken during the course provides the additional qualifications for entry to Part I and Part II of the Graduate Membership examinations.

**1st Year**

**Tutor:** Dr. B. M. Smallwood

**Curriculum:** inorganic chemistry: chemical bonding, atomic structure, valency, typical elements, radiochemistry; organic chemistry: electronic theory of organic chemistry and its applications to functional group chemistry, stereo-chemistry I; physical chemistry: first law of thermodynamics, chemical kinetics, kinetic molecular theory of gases, electrochemistry; general physics; mathematics; general studies.

**Course duration:** September to March (24 weeks)

**Examinations:** Externally moderated: each unit has a set of assessments.

**2nd Year**

**Tutor:** Dr. D. Mason

**Curriculum:** Inorganic chemistry: transition elements, co-ordination compounds, carbonyls, nitrosyls; organic chemistry: further reaction mechanisms, aromatic chemistry, stereo-chemistry II; physical chemistry: second and third laws of thermodynamics, electrochemistry (galvanic cells), phase equilibria, colloid and surface chemistry; environmental studies; advanced analytical chemistry; general and related studies.

**Course duration:** September to March (24 weeks)

**Examinations:** Externally moderated: each unit has a set of assessments.

**Qualification:** TEC Higher Certificate in Physical Science (Chemistry).

### 3rd Year

**Tutor:** Dr. K. Edgar

**Curriculum:** inorganic chemistry: comparative chemistry of the groups, review and extension of theoretical chemistry, solution chemistry; organic chemistry: alicyclic and heterocyclic chemistry, stereo-chemistry III; physical chemistry: review and extension of thermodynamics, thermodynamics of solutions, structural chemistry, chemical kinetics; environmental studies; advanced analytical chemistry; related studies.

**Course duration:** September to July (35 weeks)

**Examinations:** Externally moderated: each TEC unit has a set of assessments: GradRIC Part I examination.

**Qualification:** TEC Higher Diploma in Physical Science (Chemistry).

### 4th Year

**Tutor:** Dr. G. Dyer

**Curriculum:** review and extension of chemical subjects studied: recent advances in inorganic, organic and physical chemistry; general professional topics.

**Course duration:** September to July (35 weeks)

**Examinations:** GradRIC Part II

**Qualification:** Graduate Membership of the Royal Institute of Chemistry

## Graduate Membership of the Royal Institute of Chemistry: two-year course

### Course Adviser:

Dr. J. W. Dodd

A full-time course leading to the Graduate Membership examinations of the Royal Institute of Chemistry.

The chemical subject matter of the course is identical with that of the third and fourth years of the four-year course, but timetabling will allow ancillary subjects to be studied during both years of this course.

Success in the GradRIC Part I examination, which is taken at the end of the first year, qualifies a student for admission to the Licentiate'ship and for entry to the second year of the course. The GradRIC Part II examination is taken at the end of the final year.

**Qualifications for entry:** GCE 'O' level passes in mathematics, English language, one science subject and two arts subjects, *or* two science subjects and one arts subject; and a Higher National Certificate in Chemistry or an appropriate TEC Higher Certificate or Diploma. The additional requirements for admission to both parts of the Institute's examinations will be met by students who are successful in Polytechnic examinations taken during the first year of

the course. Candidates for admission to the final year of the course should consult the Course Leader after assuring themselves that they have the appropriate qualifications. The course duration, examinations and qualifications are the same as those described in the 3rd and 4th years of the four-year course.

### **Corporate Membership of the Royal Institute of Chemistry**

The Royal Institute of Chemistry is the acknowledged professional organisation for chemists, its members being engaged in the advancement, teaching and practice of chemistry and its application in industry and the public service. The standard required of applicants for Membership is not less than that required for a good honours degree of a British university, and success in Part II of the Institute's Graduate Membership examination is recognised by most universities as a qualification for entry to their research schools and the subsequent award of a higher degree. There are three grades of membership: Licentiatehip (LRIC), Membership (MRIC) and Fellowship (FRIC); and all candidates for membership are required to possess suitable academic qualifications in chemistry. Candidates applying for Licentiatehip membership must have had one or two years experience in the practice of chemistry. Candidates applying for full membership (MRIC) must have had three years experience in the practice of chemistry which must include the appropriate period of counselled experience. Only candidates qualifying for full membership (MRIC or FRIC) are designated Chartered Chemist (CChem), a qualification which is recognised in both Britain and European countries.

Students taking GradRIC courses are advised to register as Student Members of the Institute and should write for details to: Registrar, The Royal Institute of Chemistry, 30 Russell Square, London WC1. Students receive literature from the Institute and may attend meetings of its members.

### **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 industrial experience. The GradRIC is recognised by the Department of Education and Science as academic teaching 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, eg 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 chemical industry has undergone a consistent expansion and reliable forecasts indicate that because of the introduction of new products the expansion will continue. The success of the 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., MRIC and LRIC). Chemists are also required by universities, colleges of technology, schools, hospitals, government sponsored research institutions and independent research organisations.

### **Polytechnic Certificate of Advanced Studies in Astronomy**

#### **Course Leader:**

Dr. V. Barocas

A one term full-time course for science teachers and graduates in industry and commerce.

**Qualifications for entry:** A Degree or a Certificate of Education with appropriate background in physical science and/or mathematics.

**Curriculum:** Basic physics, spectroscopy, relativity, astrophysics, descriptive and observational astronomy, practical work in the six main topics.

**Course duration:** One term April to July (12 weeks)

**Examinations:** Continuously assessed course work and a project report.

**Qualification:** Polytechnic Certificate of Advanced Studies in Astronomy.

### **Graduateship of the Institute of Physics: one-year course**

#### **Course Leader:**

Dr. P. R. Bissell

A one-year course for students with qualifications in science or engineering. The aim of the course is to secure full Membership of the Institute of Physics for physicists with intermediate qualifications and also for engineers and scientists who aspire to senior positions and need to have professional membership of one or more corporate bodies.

**Qualifications for entry:** The Associateship of the Institute of Physics or a qualification deemed by the Physics Joint Committee to be equivalent; examples of such equivalents are:

1. The HND in Applied Physics including a pass in mathematics, or the HND in Electrical Engineering when obtained at the Malvern College of Electronics.
2. The HNC in Applied Physics with an approved group of supplementary subjects.
3. The HNC in Applied Physics which has been judged as being of sufficiently high all round standard, and followed by a further year of approved study.
4. A degree in physics at ordinary or pass level.\*
5. Degrees in Materials Science, Physical Metallurgy, Physical Electronics, Electrical Engineering, Chemical Physics, Theoretical Physics and Mathematical Science.\*
6. Candidates who have recently been unsuccessful in the final examination of an honours degree course in physics at a UK university. Such candidates should apply direct to the Institute of Physics for details on procedure.

\* Applicants who wish to enter the course under sections 4 and 5 should write to the Course Leader giving full details of their qualifications and of courses which they have undertaken.

**Tutor:** Dr. E. Webster

**Curriculum:** atomic and nuclear physics, wave motion and electromagnetic theory, thermal physics, solid state physics, applied acoustics or nuclear instrumentation and technology.

**Course duration:** September to July (36 weeks)

**Examinations:** Graduateship of the Institute of Physics

**Qualification:** success in this examination gives the academic qualifications required for full membership of the Institute of Physics

### **Corporate Membership of the Institute of Physics**

The Institute of Physics is the acknowledged professional organisation for physicists in this country. Its members are engaged in the advancement, teaching and practice of physics and its applications in industry and the public service.

The academic requirements for full professional membership are not less than those required for a good honours degree at a British polytechnic or university. The Graduateship examination is recognised by the Institute, polytechnics and universities as a good honours degree. The Graduateship examination satisfies the entry requirements of polytechnic and university research schools, and candidates who obtain either middle or upper honours in the examination are eligible for Science Research Council grants.

There are four grades of corporate membership: Associateship, Associate Membership, Membership and Fellowship. Candidates for either of the first two grades must have (a) an acceptable level of general education and (b) suitable academic qualifications in physics. Academic requirements for admission to Associateship are: either a Higher National Diploma in Applied Physics, or a Higher National Certificate in Applied Physics together with an approved endorsement, or a degree in physics awarded by a British university or the CNAA Academic Requirements for admission to Full Membership are either the Graduateship in Physics or an honours degree in physics awarded by the CNAA or a British university. Associate Members of the Institute and others holding equivalent qualifications may apply for full Membership after suitable research, teaching or industrial experience.

### **Higher National Diploma in Applied Physics (three-year sandwich course)**

#### **Course Leader:**

Dr. P. R. Bissell

A three-year Polytechnic based sandwich course leading to the qualifications of Higher National Diploma in Applied Physics and Associate Membership of the Institute of Physics. Good marks in the HND examination secure exemption from Part I and entry to the Part II course of the Graduateship of the Institute of Physics.

The sandwich element of the course is arranged so that students spend the first two terms of the second year in industry, placements having been found by the industrial training tutor.

Academically inclined students reaching a high standard on this course will normally have the opportunity to transfer to the second year of the BSc Combined Science course to study physics and mathematics. Transfer may take place at the end of the first, second or third years.

#### **Qualifications for entry:**

1. Students must have studied both physics and mathematics to GCE Advanced level standard and passed in one of these subjects. In some instances students who are admitted with a

single 'A' level pass may have to undertake supplementary studies in either physics or mathematics and sit an examination at the end of their first term in the Polytechnic, or

2. An Ordinary National Certificate in Sciences with passes in the following subjects: (a) basic physics, basic mathematics and elective physics; or (b) basic physics with a mark of at least 50%, basic mathematics and elective mathematics; or (c) basic physics, basic mathematics and a subject comprising approved sections of the elective physics and elective mathematics syllabuses, or
3. An Ordinary National Diploma in Sciences, normally including passes in major physics and minor mathematics, or
4. An Ordinary National Certificate in Applied Physics, or
5. An Ordinary National Certificate in Engineering with credits in Physics II and electrical engineering 'A' and passes in mathematics and one other subject, or
6. A qualification deemed by the Physics Joint Committee to be equivalent to any of the above and candidates with TEC Certificate/Diplomas should consult the Course Leader.

### 1st Year

**Tutor:** Dr. P. A. Bates

**Curriculum:** physics: electricity and magnetism, properties of matter, heat and thermodynamics, optics, atomic and nuclear physics; high vacuum technology; spectroscopy; electronics; chemical and physical properties of materials; mathematics: complex numbers, differential equations, vector algebra; engineering drawing; general studies.

**Course duration:** September to July (35 weeks)

**Examinations:** Internal

### 2nd Year

**Tutor:** Dr. M. Rhodes

**Curriculum:** physics: electricity and magnetism II, optics II, motion and sound, thermodynamics II; X-ray technology; electronics; instrumentation and control; nuclear physics II; mathematics: further integration, statistics, computer programming; related studies.

**Course duration:** April to July (12 weeks)

**Examinations:** Continuously assessed coursework

### 3rd Year

**Tutor:** Mr. A. R. Howells

**Curriculum:** physics: quantum mechanics, atomic physics, statistical mechanics, thermodynamics, low temperatures, relativity, optics; mathematics: differential equations, vector calculus, fluid flow, small oscillations, statistics; electronics: amplifiers, modulation, microwaves, logic circuits, analogue computers; instrumentation and control; atomic and nuclear physics; non-destructive testing; applied acoustics; related studies.

**Course duration:** September to July (35 weeks)

**Examinations:** HND in Applied Physics

**Qualifications:** Associate Membership of the Institute of Physics and HND in Applied Physics

## Careers in Astronomy and Physics

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

Many physicists are attracted to careers in the electrical and electronics industries and the nuclear industry whilst those interested in the mathematical aspect of the subject may, for example, seek employment in the aircraft industry or computer work. Specialized applications of physics draw some to the oil industry, to instrumentation and control work, to developments in space research and astronomy and other executive scientific areas. About 50% of physicists employed in industry work on research and 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, the Post Office, 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.

## Higher National Diploma in Applied Biology

### *Course Leader:*

Mr. F. Ramsden

A two-year full-time course which includes specialist options, the student choosing two from Ecology, Microbiology and Applied Physiology. The Diploma allows entry to courses leading to qualifications awarded by the Institute of Biology.

**Qualifications for entry:** GCE 'O' level passes in mathematics, chemistry or a physical science and a subject testing the use of English **together with either** an Ordinary National Certificate in a range of biological subjects **or** completion of the courses for two science subjects to GCE 'A' level and having passed the examination in at least **one** of them. (There must be evidence of study of a biological subject and chemistry or a physical science beyond the Ordinary level standard). Other combinations of entry qualifications may be acceptable: the Course Leader should be consulted.

### 1st Year

**Tutor:** Dr. J. J. Waring

**Curriculum:** basic sciences; chemistry, physics and mathematics together with aspects of biochemistry, genetics, ecology and cell physiology. The first part of the two specialist subjects is studied.

**Course duration:** September to June (35 weeks).

**Examinations:** Internal; basic sciences, biology and the two specialist subjects

### 2nd Year

**Tutor:** Mr. F. Ramsden

**Curriculum:** metabolism and other aspects of biochemistry, evolution, growth of cells and organisms, adaptation of organisms to environment, protective mechanisms in animals.

**Course duration:** September to June (35 weeks)

**Examinations:** assessed examinations in biology and the two specialist subjects together with assessment of project work

**Qualification:** Higher National Diploma in Applied Biology

### **Careers in Biology**

Biologists may work in teaching, research, manufacturing industry, hospital or veterinary laboratories.

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

There is a consistent demand for people with qualifications in a wide range of biological and applied biological subjects.

# School of Mathematics, Statistics and Computing

## **Head of School:**

D. W. Walsh, BSc, MSc, MBCS

At the present time, the School offers no full time/sandwich specialist courses in Mathematics, Statistics and Computing, it contributes a full subject, "Mathematical Sciences", to the BSc Combined Sciences course (listed in the School of Sciences) and contributes substantially to many Full time/Sandwich courses across the Polytechnic.

However, the School is seeking to establish courses with Computing specialisms at degree, diploma and certificate level.

# School of Electrical and Electronic Engineering

## **Head of School:**

A. Palmer, BScTech, CEng, MIEE

## **Head of Division:**

Electrical Engineering: P. M. McEwan, MSc, PhD, CEng, MIEE

Electronic Engineering: M. F. McKenna, BSc, PhD, CEng, MIEE

Systems and Instrumentation: R. J. Simpson, MSc, PhD, CEng, MIEE

## **BSc (Hons) and BSc in Electrical and Electronic Engineering of the Council for National Academic Awards**

## **Course Leader:**

Dr. R. J. Simpson

A four-year 'thick' sandwich course leading to the award of a Bachelor of Science Degree with Honours or Bachelor of Science Degree in Electrical and Electronic Engineering. The first three years of the course are common. 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.

**Qualifications for entry:** normally students must hold either: (a) General Certificate of Education with passes in five subjects, of which two must be at Advanced level. The subjects must include mathematics, physics and preferably English language. The Advanced level subjects must normally be mathematics (pure, or pure and applied) and either physics or engineering science; or (b) a General Certificate of Education with passes in four subjects, of which three must be at Advanced level. The subjects passed must include mathematics, physics and preferably English language. The Advanced level subjects must normally be three of the following: mathematics (pure, or pure and applied), further mathematics, physics or engineering science; or (c) an Ordinary National Diploma in Engineering or Technology (Engineering) or an Ordinary National Certificate in Engineering with passes of sufficient merit in at least three appropriate subjects, one of which must be mathematics; or (d) a TEC certificate or diploma with passes with merit in a minimum of three subjects including mathematics and electrical principles; or (e) in exceptional cases, qualifications equivalent to the above may be accepted.

## 1st Year (BSc Hons and BSc)

**Tutors:** Mr. R. N. Abbott and Dr. E. H. Smith

This is shared by students pursuing the BSc course in Mechanical Engineering so the choice of discipline may be deferred until after the first year examinations. It also has the advantage of alerting the student to the essential unity of engineering as a discipline.

**Curriculum:** mathematics and computer studies, engineering information, electrical science, mechanical science, physical science, logic and electronics, related studies, and an appropriate general study which can be conversational French or German.

**Course duration:** September to June (34 weeks)

**Examinations:** Internal, externally assessed.

## 2nd Year (BSc Hons and BSc)

**Tutor:** Mr. J. A. Askew

**Curriculum:** mathematics, related studies, instrumentation and control, physics, electrical energy conversion, electromagnetism and circuit theory, logic and electronics, and an appropriate general study which can be conversational French or German.

**Course duration:** September to June (34 weeks)

**Examinations:** Internal, externally assessed.

At the end of the second year, on the basis of performance in the course, students will be selected to read either for an Honours or an unclassified award and will undertake the appropriate 4th year course.

## 3rd Year (BSc Hons and BSc)

**Tutor:** Mr. N. T. Slater

Industrial experience. Industrial training tutors will assist students in finding suitable training places in industry.

## 4th Year

**Tutor:** Dr. M. F. McKenna

**Curriculum:** Honours: related studies, control, signal analysis and processing, mathematics and electromagnetism, project; two subjects selected from: power systems, digital systems, electronic systems.

**Curriculum:** Unclassified: industrial systems, mathematics, analogue and digital systems, electromagnetism and circuit theory, control engineering, power systems or communication engineering, together with a project.

**Course duration:** September to June (34 weeks)

**Examinations:** Internal, externally assessed

**Qualifications:** Successful completion of the course results in the award of either a Bachelor of Science degree with Honours in Electrical and Electronic Engineering or a Bachelor of Science Degree in Electrical and Electronic Engineering.

## Associate Membership of the Institution of Electrical Engineers, Graduate Membership of the Institution of Electronic and Radio Engineers & Higher National Diploma

### *Course Leader:*

Dr. P. M. McEwan

A four-year sandwich course for students wishing to satisfy the academic requirements for election as an Associate Member of the Institution of Electrical Engineers and/or Graduate Member of the Institution of Electronic and Radio Engineers. Successful completion of the first three years of the course leads to the award of a Higher National Diploma in Electrical and Electronic Engineering, giving exemption from the Council of Engineering Institutions' Part I Examinations. The final year of the course leads to the Council of Engineering Institutions' Part II Examinations, and Associate Membership of the professional electrical and electronic engineering institutions. Students not wishing to pursue academic studies specifically for professional engineer status may terminate the course with the award of a Higher National Diploma at the end of the third year.

Students selected for the course may be in employment and receive support from their industrial concern, or alternatively some students may wish to pursue the course independently. The latter students may be direct from school or may already have obtained some industrial experience. These two groups are referred to respectively as Industry-based or Polytechnic-based students. In each of the first two years of the course students will normally spend alternate six monthly periods in full-time study at the Polytechnic. The industrial training periods for these latter students are, wherever possible, arranged by the Polytechnic.

Students who reach a high standard at the end of the first six-month sandwich period will normally have the opportunity to transfer to the BSc course in Electrical and Electronic Engineering.

**Qualifications for entry** to the first year of the course: an Ordinary National Diploma in Technology (Engineering), or an Ordinary National Certificate or Diploma in Engineering, or 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 subjects, together with a pass in each of three additional subjects at Ordinary level, *or* any equivalent qualification.

### **1st Year**

**Tutor:** Mr. T. Izatt

**Curriculum:** mathematics and computing, electric circuits and electronics, electric fields and electromechanics, engineering science, mechanical engineering science, technical communication, workshop and laboratory techniques, general studies.

**Course duration:** September to July (35 weeks) for Polytechnic based students, September to April (25 weeks) for Industry based students.

**Examinations:** Internal

### **2nd Year**

**Tutor:** Mr. R. O. Hall

**Curriculum:** mathematics, electric circuits, fields and measurements, electronic engineering, electrical power engineering, physics, engineer in society.

**Course duration:** September to April (25 weeks)

**Examinations:** Internal

### 3rd Year

**Tutor:** Mr. A. Leadbetter

**Curriculum:** subjects selected from: mathematics, circuits, fields and measurements, electronic engineering, electricity supply, utilisation of electrical power, telecommunications, digital techniques, control engineering, engineer in society.

**Course duration:** September to April (25 weeks)

**Examinations:** Internal, externally assessed.

**Qualification:** Higher National Diploma in Electrical and Electronic Engineering.

### 4th Year

**Tutor:** Mr. H. Duckworth

**Curriculum:** subjects selected from electronics, electromagnetic fields and networks, communication engineering, computer engineering, electrical power engineering, electrical machines, mathematics, engineer in society.

**Course duration:** April to July (10 weeks) and September to May (30 weeks approximately)

**Examinations:** External CEI Part II

**Qualifications:** Associate Membership of the Institution of Electrical Engineers, and/or Graduate Membership of the Institution of Electronic and Radio Engineers.

## Council of Engineering Institutions Part II Examinations

### Course Leader:

Dr. P. M. McEwan

The Institution of Electrical Engineers and the Institution of Electronic and Radio Engineers are the professional organisations for electrical and electronic engineers. These form part of the Council of Engineering Institutions (CEI). The IEE and the IERE both require graduate level academic qualifications for entry to corporate membership, and these are provided by the CEI Part II Examinations. The title of Chartered Engineer (CEng) and corporate membership is conferred after a period of suitable industrial experience.

**Qualifications for entry:** a Higher National Diploma, or a good Higher National Certificate with three endorsement subjects, or any equivalent qualification.

**Curriculum:** subjects selected from electrical energy, electrical power engineering, electromagnetic fields and networks, communication engineering, electronic engineering, computer engineering, systems and control engineering, mathematics, management studies.

**Course duration:** April to July (10 weeks) and September to May (30 weeks approximately). Suitable external applicants will be considered for admission in either April or September.

**Examinations:** External CEI Part II

**Qualification:** Associate Membership of the Institution of Electrical Engineers, or Graduate Membership of the Institution of Electronic and Radio Engineers.

## **TEC Higher Diploma in Electrical and Electronic Engineering**

**Course Tutor:** Mr. T. Wilson

A three year sandwich course based on a unit structure and incorporating programmes of study in Electrical and Electronic Engineering. Students will be counselled prior to entry to the course and will be able to select a programme comprising an integrated set of units matching his/her qualifications career interests. It should be appreciated that student numbers may be such as to limit the number of units offered each year. Students undertake a six month industrial training period in the second and third years of the course. Internal assessment will occur throughout each unit of study and in completion of the unit students will be awarded a pass with merit, or a pass or a fail. On passing the appropriate number of units, students will be eligible for the award of a TEC Higher Diploma in Electrical and Electronic Engineering. Further information on TEC courses is given on page 68.

**Qualifications for entry:** an Ordinary National Certificate or Diploma in Engineering **or** a TEC Certificate or Diploma in Engineering **or** completion of GCE Advanced level courses in mathematics and in physics or engineering science with a pass in at least **one** of these subjects together with a pass in each of three additional subjects at Ordinary level **or** any equivalent qualification.

### **1st Year**

**Tutor:** to be nominated.

**Curriculum:** the units available will cover: mathematics and computing, electrical and mechanical science, technical communication, workshop and laboratory techniques, and general studies.

**Course duration:** September to July (35 weeks) for Polytechnic based students; September to April (25 weeks) for industry based students.

**Examinations:** Externally moderated, the set of assessments associated with each unit selected.

### **2nd Year**

**Tutor:** to be nominated.

**Curriculum:** the units available will cover: electric circuits, fields and measurements, electronic engineering, electrical power, physics, general and communication studies, workshop and laboratory techniques.

**Course duration:** September to April (25 weeks)

**Examinations:** Externally moderated, the set of assessments associated with each unit selected.

### **3rd Year**

**Tutor:** to be nominated.

**Curriculum:** the units available will cover: mathematics, circuits, fields and measurements, electronic engineering, electricity supply, utilization of electric power, telecommunications, control engineering, workshop and laboratory techniques, general and communication studies.

**Course duration:** September to April (25 weeks)

**Examinations:** Externally moderated, the set of assessments associated with each unit selected.

**Qualification:** The TEC Higher Diploma in Electrical and Electronic Engineering.

### **Corporate Membership of the Professional Institutions**

The Council of Engineering Institutions representing fifteen Institutions, including the Institution of Electrical Engineers and the Institution of Electronic and Radio Engineers, was established in 1966 and holds the sole authority to confer the title 'Chartered Engineer' on members of the profession.

In order to attain the status 'Chartered Engineer' it is necessary for the candidate to either pass or obtain exemption from the Part I and II Examinations set by the Council. A Higher National Diploma in Electrical and Electronic Engineering gives exemption from Part I, whilst a Degree in Electrical and Electronic Engineering gives exemption from Parts I and II. A candidate is then qualified for consideration as an Associate Member of the Institution of Electrical Engineers and/or a Graduate Member of the Institution of Electronic and Radio Engineers. If this is followed by a period of approved experience in the field of electrical or electronic engineering, a candidate is entitled to apply for admission to Corporate Membership and also gain the status 'Chartered Engineer' (CEng).

The standard of the final Part II examination of the Council of Engineering Institutions is equivalent to that of a first degree in electrical engineering. It is recognised by many universities as a suitable qualification for entry to a higher degree course.

### **Careers in Electrical and Electronic Engineering**

Electrical engineering is concerned with harnessing the physical processes of electricity for the well-being and progress of mankind.

A professional electrical or electronic engineer employs a scientific approach to the solution of engineering problems. Usually a number of solutions are feasible; the best practical solution however demands the engineers' skill and judgement, based on training and knowledge of economics, design and material properties.

The electrical and electronic engineering industry embraces modern developments in micro processors, power electronics, computers, communications and automation. The field of electrical engineering provides a fascinating and worthwhile career for those who have the aptitude for design, manufacture, testing or research. Electrical and electronic equipment is used in all facets of manufacturing, process, control and service industries. Men and women with the qualifications obtained on completing this course have opportunities for employment in all these industries.

Having successfully completed the CEI Part II Examinations of the course, the diplomates, with suitable professional experience, will achieve corporate membership of either senior professional electrical institutions with possession of Chartered Engineer Status. This provides further opportunities for careers in engineering management for suitably able professional engineers.

# School of Mechanical and Production Engineering

## **Head of School:**

D. M. Clapp, BSc (Eng), PhD, CEng, MICE, FIMechE

## **Heads of Division:**

Mechanical Engineering: J. Tirrell, BSc, CEng, MIMechE

Production Engineering and Design: P. C. de Santos, BSc, CEng, MIProdE

Industrial Technology: F. Tattersall, CEng, MIMechE, MIProdE

## **Polytechnic Certificate of Advanced Studies in Design and Manufacture**

**Course Tutor:** Dr. M. G. Hodskinson

A full-time course is offered to provide graduates of various disciplines, who have little or no practical training with an accelerated appreciation course of many of the areas of design and production practice and provides part of the graduate experience necessary for Corporate membership of the Institutions of Mechanical and Production Engineers.

A project design and manufacture forms an important part of the course since it provides an opportunity for the graduate to apply the knowledge gained, in supporting academic study, of design and manufacturing processes to a 'real' situation and to experience many of the pressures of the industrial environment.

The course is offered in two forms, either 12 weeks or 22 weeks. The basic 12 weeks' course concentrates on design and manufacture, whilst the extended variant includes two extra parts, Computing for Engineers and Engineering Practice Part I. The course in its 22 week form is approved by IMechE for joint certification and by the Institute of Engineering Designers for award of its diploma. Further details may be obtained from the Course Tutor.

**Qualifications for entry:** A student must have an academic background equivalent to that required by the Professional Institutions for Graduate membership (normally a degree of a University or Polytechnic) and, (i) be seeking a career in an engineering industry, (ii) be sponsored by his employer. Employers sponsoring students may be eligible for E.I.T.B. grants, as part of a recognised training scheme.

## **BSc Honours and BSc in Mechanical Engineering of the Council for National Academic Awards**

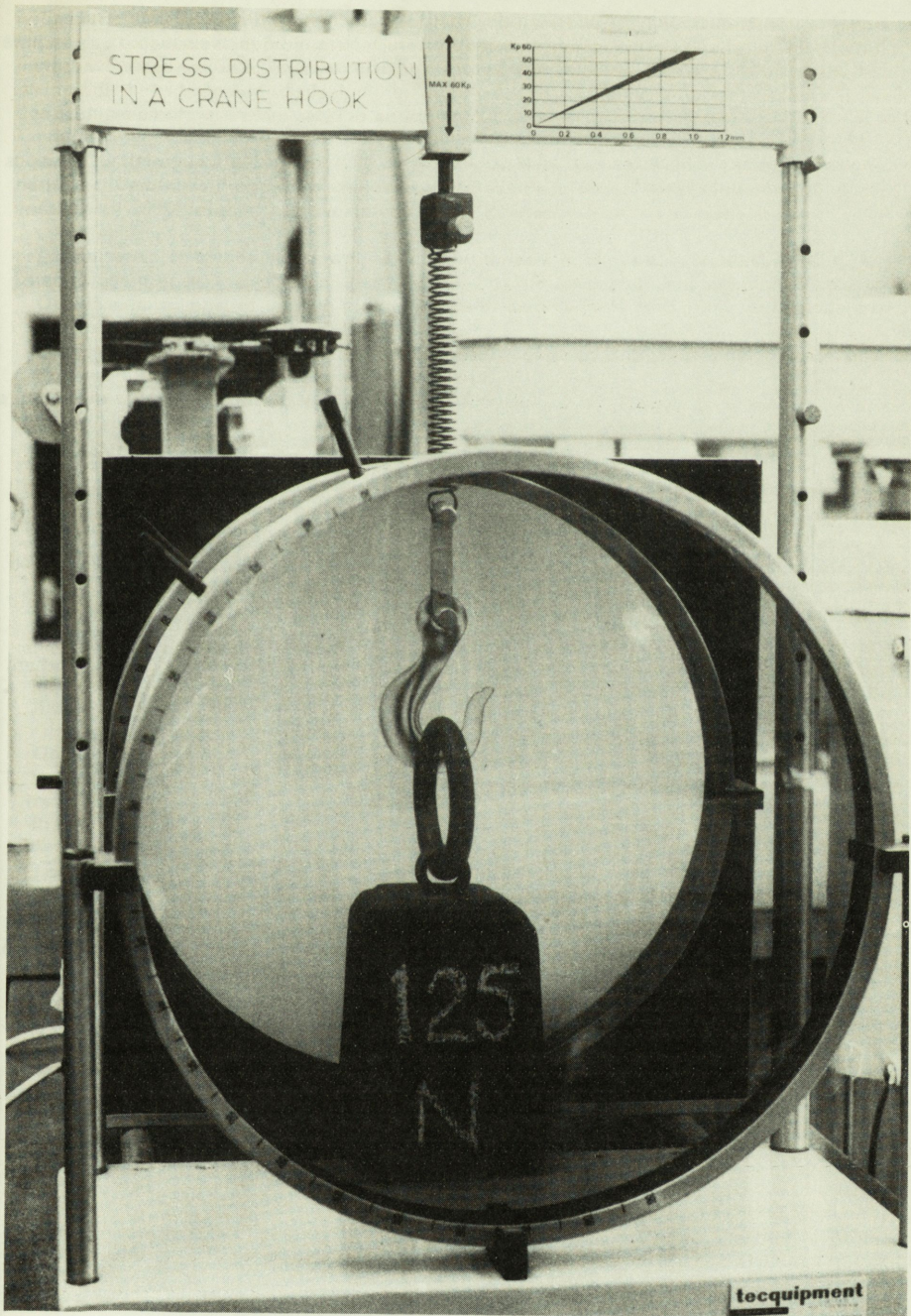
**Course Leader:**

P. Tucker

A four year 'thick' sandwich course leading to the award of a Bachelor of Science Degree with Honours or Bachelor of Science Degree in Mechanical Engineering. The first three years of the course are common. 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.

**Qualifications for entry:** normally students must hold either:

(a) a General Certificate of Education with passes in five subjects, of which two must be at



*Stress Analysis*

Advanced level. The subjects passed must include mathematics, physics and preferably English language. The Advanced level subjects must normally be mathematics (pure, or pure and applied) and either physics or engineering science, or

- (b) a General Certificate of Education with passes in four subjects, of which three must be at Advanced level. The subjects passed must include mathematics, physics and preferably English language. The Advanced level subjects must be three of the following: mathematics (pure, or pure and applied), further mathematics, physics, engineering, engineering science, or
- (c) an Ordinary National Diploma in Engineering or Technology (Engineering); an Ordinary National Certificate in Engineering. In such a case passes of sufficient merit in appropriate subjects are required, one of which must be mathematics, or
- (d) a TEC Certificate or Diploma equivalent to (c)

In exceptional cases, qualifications equivalent to the above may be accepted, at the discretion of the Director.

### **1st Year**

**Tutors:** Mr. R. Abbott and Dr. E. H. Smith

This is shared by students pursuing the BSc course in Electrical and Electronic Engineering, so the choice of discipline may be deferred until the end of this year.

**Curriculum:** mathematics and computer studies, electrical science, mechanical science, physical science, logic and electronics; data acquisition and processing, related studies and an appropriate general study (which may be a European language).

**Course duration:** September to June (34 weeks)

**Examinations:** Internal, externally assessed

### **2nd Year (BSc Hons and BSc)**

**Tutor:** Mr. D. Kerr

**Curriculum:** mathematics, related studies, instrumentation and control, thermomechanics of fluids, dynamics of mechanical systems, properties and mechanics of solids, elements of design and an appropriate general study.

**Course duration:** September to June (34 weeks)

**Examinations:** internal, externally assessed

At the end of the second year, on the basis of performance in the course so far, the students are selected to read either for an Honours or an unclassified award, and will undertake the appropriate 4th year course.

### **3rd Year (BSc Hons and BSc)**

Industrial experience. Industrial training tutors will assist students in finding suitable training places in industry.

### **4th Year**

**Tutor:** Mr. J. R. Nuttall

**Curriculum:** Honours: project, mechanics of solids, thermomechanics of fluids, engineering systems and control, numerical and computer studies, related studies, together with one subject from – thermofluid machines, structural analysis, engineering design.

**Curriculum:** Unclassified: project, mechanics of solids, thermomechanics of fluids, engineering systems and control, mathematics, related studies, together with one subject from thermofluid machines, structural analysis, engineering design.

**Course duration:** September to June (34 weeks)

**Examinations:** Internal, externally assessed

**Qualifications:** successful completion of the course results in the award of the degree of Bachelor of Science with Honours in Mechanical Engineering or Bachelor of Science in Mechanical Engineering. These awards meet the academic requirements of the Council of Engineering Institutions.

### **Higher National Diploma in Mechanical Engineering (three year sandwich course) including Industrial Design Option**

**Course Leader:**

Mr. J. N. Greenhow

A three-year sandwich course, accepting both Polytechnic and Industry-based students. A Higher National Diploma is awarded upon the successful completion of the third year, and this accords exemption from the CEI Part I Examinations. During the first three years of the course, ie. up to HND, students are required to satisfy Joint Committee Industrial Training requirements which entail spending 48 weeks in suitable training. The subject Area has appointed an Industrial Training Tutor to assist students in finding training places.

**Qualifications for entry:** normally, students must be 18 years of age on 1st September of the year of entry and hold **either** (a) an Ordinary national Certificate or Diploma in Engineering or in Mechanical or Electrical Engineering with passes, preferably at 50% level, at the final level in mathematics, applied mechanics and one other subject, **or** (b) an appropriate TEC Certificate or Diploma **or** (c) the GCE in five subjects, two of which must be mathematics and physics, (Engineering Science is an acceptable alternative to Physics) one of these two having been passed at advanced level and the other having been studied to the same level (a CSE grade 1 pass in an approved subject may be accepted as an alternative to a GCE 'O' level pass in that subject, **or** (d) a Mechanical Engineering Technician's Certificate, Parts I and II (CGLI course No. 293) together with the completion of appropriate additional study arranged by the Polytechnic, **or** (e) other qualifications deemed equivalent to the above by the Joint Committee for the award of Diplomas.

#### **1st Year**

**Tutor:** Mr. N. G. Allen

**Curriculum:** the first year is common for the Diplomas in Mechanical Engineering, and Production Engineering, and includes mathematics, materials science, thermodynamics of fluids, mechanics of solids, engineering drawing, graphics and exploration of form, electrical studies, principles of manufacture and general studies. In addition, entrants from GCE 'A' level, ONC/OND and OC/OD courses will spend 12 of the 35 weeks in complementary engineering studies, in polytechnic workshops and associated laboratories. Entrants from the Mechanical Engineering Technician's course will have a 6 weeks introductory course, and spend only 6 weeks in complementary engineering studies. (In either case these periods are accepted as part of the Industrial Training requirement).

**Course duration:** September to July (35 weeks)

**Examinations:** Internal (progressive assessment)

## 2nd Year

**Tutor:** Mr. A. Ottewell

**Curriculum:** mathematics, materials and structures, engineering dynamics, thermo-mechanics of fluids, methods of manufacture, electrical studies, engineering design and general studies.

**Course duration:** September to March (24 weeks)

**Examinations:** Internal

## 3rd Year

**Tutor:** Mr. J. N. Greenhow

**Curriculum:** mathematics, stress analysis and material properties, engineering dynamics, engineering thermodynamics, engineering fluid mechanics, manufacturing technology, engineering design and engineer in society; additional subjects are taken in the Design Option.

**Course duration:** October to December (Design Option); January to July (General Course, 23 weeks).

**Examinations:** HND assessed in 6 subjects, together with assessed design project.

**Qualifications:** Higher National Diploma in Mechanical Engineering on passing five assessed subjects including stress analysis and material properties, and engineering dynamics. Exemption from CEI Part I examinations.

### Careers in Mechanical Engineering

The Mechanical Engineer makes a contribution to almost every aspect of modern life, from agriculture to aerospace. He is responsible for the design and development of products ranging from process timers, small enough to swallow, to turbines developing a million kilowatts each. His work may involve co-operation with surgeons and physicians in the bio-engineering field; with chemists in the design of pill-making machinery or oil refineries. The astronomer relies on the engineer for his giant telescopes, the tailor for his sewing machine, and the schoolboy for his bicycle. It is, indeed, difficult to name a field in which the Mechanical Engineer is not involved. It follows that the work of the Mechanical Engineer can be more diverse than that of members of many other professions. His career may, for example, begin in railway work, continue in the design of fire pumps, and end as a technical director of a firm of shipbuilders. On the other hand, engineers who work in the same branch throughout life can find technical progress so rapid that new and intriguing problems are constantly arising. Even in a traditional field like steam power plant, turbine engineers are today designing machines forty times as powerful as those in use when they started work. As never before, engineering is a profession as interesting as it is socially relevant.

Within any branch of mechanical engineering is a wide spectrum of activities – design, development, research, technical sales, operation, management and teaching. The vast range of creative activity needed in the development and improvement of current products, and in contriving new devices to meet needs not yet known, offers an exciting challenge to all young Chartered Mechanical Engineers.

### Careers in Industrial Design

The term 'Industrial Design' requires explanation, as all engineering designers are engaged in one industry or another, and most engineers are to a greater or lesser degree designers. In the

field of the creative artist, however, the design of articles for industrial (as opposed to craft) production is a relatively new activity, and the term 'Industrial Designer' was conceived as a generic description for those so occupied. It has now been extended to cover all those engaged in the design of engineering products in which aesthetic consideration forms a major factor in the design.

The profession of Industrial Designer offers a new and exciting field of endeavour in which emphasis is on imagination and creative thought, supported by an appreciation of the real needs of society and a sound knowledge of engineering. Opportunities for a young person with these attributes are considerable. He or she may form part of a design team in a large organisation, may be a consultant – either in partnership or free-lance – or may be the sole designer, with draughtsmen working for him, or her, in a smaller firm.

It is important to appreciate that whilst many Industrial Designers are at present working for firms marketing consumer goods – washing machines, refrigerators and the like – an increasing number are engaged in both light and heavy engineering. The improved appearance and ease of operation of modern machine tools – some costing hundreds of thousands of pounds – is due to their effort. Dockside and steelworks cranes of up to 250 tons capacity, earth-moving machines, electric motors, pumps, are all examples of engineering products on which the Industrial Designer has had a marked influence. It is perhaps worth emphasising that in many cases the new design is cheaper than the old, and that the services of the Industrial Designer are being called for in the marketing departments of many larger firms.

### **Higher National Diploma in Production Engineering (three year sandwich course)**

#### ***Course Leader:***

Mr. J. N. Greenhow

A three-year sandwich course, accepting both Polytechnic and Industry-based students. A Higher National Diploma is awarded upon the successful completion of the third year, and this accords exemption from the CEI Part I Examinations. During the first-years of the course, ie. up to HND, students are required to satisfy Joint Committee Industrial Training requirements which entail spending 48 weeks in suitable training. The Subject Area has appointed an Industrial Training tutor to assist students in finding training places.

***Qualification for entry:*** as detailed in the course leading to the Higher National Diploma in Mechanical Engineering.

#### **1st Year**

***Tutor:*** Mr. N. G. Allen

The curriculum of the first year is common for the Higher National Diploma in Mechanical Engineering, and Production Engineering.

***Course duration:*** September to July (35 weeks)

***Examinations:*** Internal (progressive assessment)

#### **2nd Year**

***Tutor:*** Mr. A. Ottewell

***Curriculum:*** mathematics, materials and structures, engineering dynamics, electrical studies, general studies, analysis of manufacturing systems, production technology, design for production engineers.

**Course duration:** September to March (24 weeks)

**Examinations:** Internal

**3rd Year**

**Tutor:** Mr. J. N. Greenhow

**Curriculum:** mathematics, stress analysis and material properties, engineering dynamics, production technology, analysis of manufacturing systems, manufacturing control technology, engineer in society and operations research.

**Course duration:** January to July (23 weeks)

**Examinations:** HND assessed in 7 subjects

**Qualification:** Higher National Diploma in Production Engineering on passing 5 assessed subjects including Production Technology and Analysis of Manufacturing Systems. Exemption from CEI Part I Examinations.

### **Careers in Production Engineering**

Every device required by man, from safety pins to space vehicles, must be manufactured. It is the responsibility of the Production Engineer to translate the ideas of the scientist and the designs of the engineer into reality. He or she will be responsible for devising methods of manufacture and supplies of materials, for organising the flow of work and, in general, for managing the complete process from raw material to finished product.

The work may range from production control – the application of scientific principles to systems of manufacture and management – to detailed investigation and research into methods of forming materials. Extremely rapid developments are taking place in the field of automation and the application of computers to plant and machine tools. In the field of metal shaping and fabrication many exciting avenues are opening, such as the application of lasers, electron beam welding, and processing in vacuo.

The Production Engineer must be versatile, technically competent, and able to make decisions. Much of the work will be involved in human relationships – the majority of senior production engineers are managers – and there is ample opportunity for those with a flair in this direction.

### **Membership of Professional Engineering Institutions**

All students accepted into a professional course are advised to apply for student membership of the appropriate Engineering Institution; such membership has many advantages. Course Leaders can supply all necessary information and application forms.

The title of 'Chartered Engineer' (CEng) is awarded by the Council of Engineering Institutions (CEI) which operates under Royal Charter and represents all the major Institutions\*. To achieve this title, it is necessary both to meet the academic requirements of the Council of Engineering Institutions and to be elected into corporate membership of one of the constituent Institutions of the Council.

\* The constituent members of the Council of Engineering Institutions are:

- |  |  |
|--|--|
| The Royal Aeronautical Society                       | The Institution of Mechanical Engineers  |
| The Institution of Chemical Engineers                | The Institution of Mining Engineers      |
| The Institution of Civil Engineers                   | The Institution of Mining and Metallurgy |
| The Institution of Electrical Engineers              | The Institution of Municipal Engineers   |
| The Institution of Gas Engineers                     | Royal Institution of Naval Architects    |
| The Institution of Marine Engineers                  | The Institution of Production Engineers  |
| The Institution of Electronic and<br>Radio Engineers | The Institution of Structural Engineers  |

The CEI examination is in two parts. Part I is common to all branches of engineering. Part II comprises one subject which is compulsory for all candidates, together with five others chosen from a wide variety of alternatives. Each Engineering Institution is free to lay down which of these alternatives must be passed to qualify for membership; most have specified two only, leaving the candidate to choose the others to suit his personal interests or the course in which he is studying. The standard of the Part II examination is that of a University Degree in Engineering. The other requirements of corporate membership (general education, industrial training, and responsible experience) are laid down by the particular Institution into which an engineer seeks election.

### **TEC Higher Diploma in Production Engineering (Three Year Sandwich course)**

**Course Leader:** Mr. G. Podmore

This initial integrated course scheme incorporates core programmes in production engineering and aircraft production engineering. It should be appreciated that student numbers may be such as to limit the total range of programmes offered each year. All students will be counselled prior to entry to the course and a decision on the most appropriate programme to be followed will be taken in view of the student's qualifications and career interests. Students undertake a nine-month industrial training period in the second and third years of the course. Continuous internal assessment will occur throughout each unit of study and on completion of the unit students will be awarded a pass with merit, or a pass, or a fail. On passing the appropriate number of units, students will be eligible for the award of a TEC Higher Diploma in Mechanical and Production Engineering. Further information on TEC courses is given on page 68.

**Qualifications for entry:** (a) an Ordinary National Diploma in Technology (Engineering), an Ordinary National Certificate in Diploma in Engineering or in Mechanical or Electrical Engineering or (b) a TEC Certificate or Diploma in Engineering, or (c) GCE in five subjects, two of which must be mathematics and physics (or engineering science), one of these two having been passed at advanced level and the other having been studied to the same level or (d) a Mechanical Engineering Technical Certificate Part I and II (CGLI course No. 293) or (e) other qualifications deemed equivalent.

#### **1st Year**

**Tutor:** Mr. G. Podmore

**Curriculum:** engineering drawing and design, manufacturing technology, thermo-mechanics of fluids, electrical engineering science, mathematics, science, materials, instrumentation and control, industrial studies, use of computers, experimental studies, complementary engineering studies.

**Course duration:** September to July (35 weeks)

**Examinations:** Externally moderated; the set of assessments associated with each unit selected.

#### **2nd Year**

**Tutor:**

**Curriculum:** mathematics, science, materials, engineering design, industrial studies, electrical engineering science, manufacturing technology, thermo-mechanics of fluids, experimental studies.

**Course duration:** September to March (24 weeks)

**Examinations:** Externally moderated; the set of assessments associated with each unit selected.

### **3rd Year**

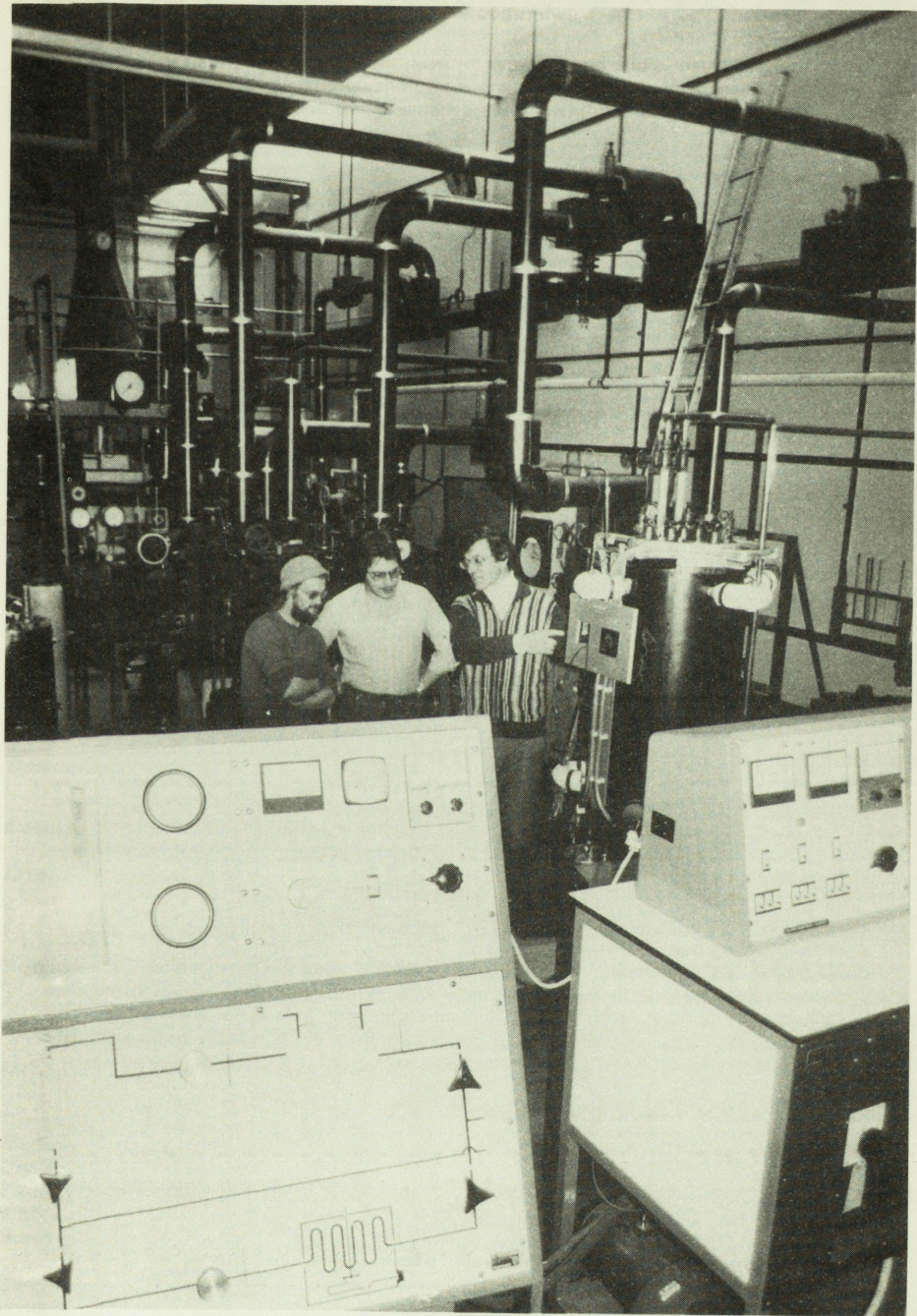
**Tutor:** Mr. G. Podmore

**Curriculum:** units which may be taken in lieu of 3 months industrial training: industrial design, engineering design, ergonomics and aesthetics, industrial design project; core studies: mathematics, engineering management techniques, structural and stress analysis, engineering dynamics, production systems, material deformation, experimental studies; selection of 3-5 options from: industrial studies, hydraulic and pneumatic control, n.c. technology, control engineering, quality control, thermo-mechanics of fluids, aircraft structures, engineering design, project, materials, design for manufacture, jig and tool design, engineering dynamics, structural and stress analyses.

**Course duration:** January to July (24 weeks) or September to July (35 weeks)

**Examinations:** Externally moderated: the set of assessments associated with each unit selected.

**Qualifications:** TEC Higher Diploma in Mechanical and Production Engineering.



*Power-plants laboratory*

# School of Construction and Urban Studies

## **Head of School:**

T. M. Ryan BSc(EstMan), FRICS, FIQS

## **Technician Education Council: Higher Diploma in Building Studies**

## **Course Leader:**

Mr. W. H. Roberts

A three-year sandwich course which provides education and training for careers with professional status in Quantity Surveying, Building Management and Estimating. An industrial training period of 52 weeks duration (including the summer vacation) is provided between the first and second years of the course in order to provide practical experience of site and/or office work. The third year consists entirely of full-time study at the Polytechnic. It is likely that 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: Final Part I of the Institute of Building and all of the first and part of the Second Examination of the Institute of Quantity Surveyors. Exemption from part of the examinations of the Construction Surveyors Institute may also be afforded.

As an integral part of the course, third year students will attend a five day residential course in Land Surveying.

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.

The industrial training requirement may be waived for candidates with appropriate industrial experience.

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:**

- (1) The General Certificate of Education (or its equivalent) in four subjects (grade 'C' or above) one of which must be at 'A' level. The Subjects must include Mathematics, an appropriate Science such as Physics, Chemistry, Building or Engineering Science or General Science, and a subject requiring a facility in written English eg. English Language, English Literature, History or Geography, or
- (2) an Ordinary National Diploma in Building, or
- (3) an Ordinary National Certificate in Building or Construction (current scheme), or
- (4) a Full-technological Certificate in Building Crafts and a pass in the Pre-Higher National Certificate Bridging Course.
- (5) a TEC Diploma or Certificate in an appropriate subject.

## **1st Year**

**Tutor:** Mr. J. A. Tinker

**Curriculum:** Subjects according to programme of study from: building technology, measurement of building works, site surveying & leveling, mathematics, science and materials, structural mechanics, organisation and procedures.

**Course duration:** September to April (26 weeks)

**Examinations:** Internal

**Industrial Training Tutor:** Mr. T. Lonsdale

### 2nd Year

**Tutor:** Mr. R. Smith

**Curriculum:** Subjects according to programme of study from: building technology, building law, economics of industry, design of structural elements, measurement of building works and design procedures.

**Course duration:** April to July (9 weeks)

**Examinations:** Internal

### 3rd Year

**Tutor:** Mr. D. Evans

**Curriculum:** Subjects according to programme of study from: building technology, geotechnics, measurement of building work, tenders and estimating, environmental science, site surveying, site management (production), site management (personnel), building services and equipment, integrated studies, building law, design technology, building regulations, maintenance and adaptation of buildings, building legislation

**Course duration:** September to June (30 weeks)

**Examinations:** Internal, externally assessed

**Qualification:** Technician Education Council Higher Diploma in Building Studies.

## Polytechnic Diploma in Building Management and Economics

### Course Leader:

Mr. J. M. Patchett

The course is a one year full-time course for those who wish to qualify for Corporate Membership of the Institute of Building. The Institute of Building will grant to holders of the Diploma exemption from all subjects of their Final Part II examination, except for Building Production and Project Management. In addition to which, options are available for those who wish also to gain exemption from all but the Final Examination of the Institute of Quantity Surveyors.

Candidates qualifying by either full- or part-time study will find that the course is designed to accommodate both backgrounds, and 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 past College and/or employers.

**Qualifications for entry:** Entrants to the course must hold one of the following qualifications:

- (a) Higher National Diploma in Building
- (b) First Degree of Universities in United Kingdom (including Republic of Ireland) or CNA in Architecture, Estate Management or Civil Engineering
- (c) The Institute of Building Final Examination Part I (or approved exempting award)
- (d) The former final or present third examination of the Institute of Quantity Surveyors

**Curriculum:** Compulsory subjects: building production and project management; advanced planning techniques; statistics and computing; principles of management; contract law and arbitration; economics.

Option subjects: measurement of building work and post contract practice; development economics and cost control; personnel management and industrial relations; building marketing finance and control.

**Course duration:** September to May (31 weeks)

**Examinations:** Internal, externally moderated by professional bodies for exempted awards.

**Qualifications:** Polytechnic Diploma in Building Management and Economics. Corporate Membership of the Institute of Building.

### **Careers in Construction**

The industry, which is one of the largest in the country, continually requires young men 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 young 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 prefabricated buildings, maintenance and restoration work. Within industry there are many sizes of firms each specialising in one or more of the areas listed above.

### **Institute of Quantity Surveyors: Final and Direct Final Examination**

**Course Tutor:** Mr. D. M. Horsley

A full-time course proposed for Quantity Surveyors in preparation for the Final or Direct Final examinations of The Institute of Quantity Surveyors.

The course is intended for (a) quantity surveyors who have passed or have been exempted from the I.Q.S. Second examination and wish to study full-time for the Final examination and (b) mature candidates wishing to study full-time for the Direct Final examination.

**Qualifications for entry:**

- (1) Pass in I.Q.S. Second examination, R.I.C.S. Part 2 examination (quantity surveying) or exempting qualification.
- or (2) Good professional experience and minimum age of thirty-four years.

**N.B.** Candidates are advised to ensure their acceptability for entry to the examinations directly with the professional body concerned.

**Curriculum:** construction technology and services, development economics and law, measurement of building work, cost control, civil engineering construction and quantities, construction in management, construction contracts and administration.

In addition Direct Final students also study tenders and estimating and contract law and arbitration.

**Duration:** 18 months (five academic terms) commencing in September and terminating in March.

**Examinations:** Set externally by The Institute of Quantity Surveyors.

(Note: This proposed course is subject to DES approval).

# Technician Education Council and its Awards

The Technician Education Council (TEC) was established in March 1973 in fulfilment of a recommendation of the Haslegrave Committee in 1969 on Technician courses and Examinations. TEC's functions are essentially to rationalise existing technician education provision. A TEC Policy Statement booklet was published in June 1974, copies of the booklet together with further information may be obtained from:

Technician Education Council,  
76 Portland Place,  
London W1N 4AA (tel. 01-580 3050)

Courses which will be included in the rationalised TEC framework will include ONC/D and HNC/D courses of Joint Committees and CGLI courses. These will be replaced by appropriate TEC courses. The Technician Education Council will award the following qualifications:

Certificate  
Higher Certificate

Diploma  
Higher Diploma

The Polytechnic will be offering Higher Certificate and Higher Diploma courses leading to TEC Awards.

## ***Entry Requirements for Higher TEC Courses:***

Minimum entry requirements for Higher Certificate/Diploma courses are:

- i the relevant Certificate of Diploma, with supplementary studies if necessary,  
*or*
- ii studies to GCE Advanced level and have passed at least one relevant subject at that level,  
*or*
- iii an attainment equivalent to the above.

## **General Structure of Courses and Assessment**

Polytechnic Higher Certificate and Diploma courses will ultimately be structured on a Unit basis although during the interim introductory phase some courses may be of a conventional structure.

Higher Certificate and Diploma programmes may contain Level II, III, IV and V Course Units. The concept of 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 completion of each unit, students will be given a grading which will be: Pass with Merit, or Pass, or Fail. Students who achieve the appropriate number of passes will be awarded either a Higher Certificate or a Higher Diploma.

## **Options within Courses**

Since each course contains a number of units which offer opportunities for optional studies a Higher Certificate or Higher Diploma course might be better described as a course complex embracing a number of programmes of study. Among the programmes of study within Higher Certificate course complexes will be programmes appropriate for students with academic facility

and interests and who would have opted for HNC courses prior to TEC rationalisation. There will also be programmes appropriate for the student with practical facility and interests who would have opted for CGLI courses. The unit structure enables programmes to be devised which could be tailor-made to specific industrial needs. It is, therefore, in the student's interest to consult his employer before seeking enrolment.

### Higher Certificates

The Higher Certificate Programme will comprise a minimum of ten units and consist of approximately 600 hours of part-time study in the Polytechnic for the average student.

The combination of 60 hour units will reflect 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 Diplomas

Higher Diploma Programmes will vary according to the aims of the course. Programmes providing a suitable education for senior technicians will normally comprise 1200 – 1500 hours of study. Programmes designed for students aiming to transfer to degree or professional courses may involve more than 1500 hours of study in the Polytechnic. The mode of study will be full-time/sandwich or part-time. The latter mode of study will offer an opportunity for the student with a Higher Certificate to continue part-time studies for a Higher Diploma.

The composition of a Higher Diploma programme comprising 25 units each of 60 hours (1500 hours total) would be:

Minimum number of units in a programme	25
Minimum number of units at levels IV and V	15
Number of level V units normally expected	5
Maximum number of free standing units and units at levels II and III	10

### General and Communication Studies

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

### Development

The latest information about particular TEC Higher Courses which are now being developed in the Polytechnic may be obtained from the appropriate Head of School.



*Informal area*



*Language laboratory*

# Faculty of Social Studies and Humanities

**Dean of Faculty:**

Professor Maurice North MSc (Econ), PhD

**Faculty Officer:**

Miss P. Cooke

**Courses:**

- BA (Hons) in Applied Social Studies
- BA (Hons) in Psychology
- BA (Hons) and BA (Ord) in Humanities
- Polytechnic Diploma in Applied Social Studies  
(Postgraduate)
- Polytechnic Diploma in Social Work
- Health Visitor's Certificate
- Polytechnic Diploma for Bilingual Secretaries  
(Postgraduate)
- Polytechnic Diploma for Bilingual Secretaries  
(Post G.C.E. 'A' level)
- Certificate of the National Council for the  
Training of Journalists

**Faculty of Social Studies and Humanities**

This Faculty is composed of three schools:

- The School of Psychology
- The School of Language and Humanities
- The School of Social Studies

These Schools provide courses leading to degrees, as well as courses leading to professional qualifications.

The School of Social Studies is situated in Livesey House annexe: the School of Language and Humanities is located in Robin House annexe and the School of Psychology is to be found in the main polytechnic building in Corporation Street.

The Faculty is under the supervision of a Dean, whose office is located in Livesey House annexe.

# School of Social Studies

**Head of School:** S. Henig, MA

The School offers degree, diploma and certificate courses in Social Administration, Applied Social Studies, Social Work and Health Visiting. At the present time the bulk of the work is carried out in Livesey House, a three-storey block adjacent to the main campus, in which are to be found general and specially equipped lecture and tutorial rooms, study rooms, a common room with coffee bar, and academic and secretarial staffrooms.

Many of the courses offered at present lead to professional status, and consequently students spend an appreciable amount of time in practical work placements in Social Work Agencies, Schools, Social Service Departments, etc. Strong links have been forged with Education and Social Service Authorities, who both seek places on our courses for their staff and provide career opportunities for many of our students. Staff carry out research projects which are closely linked with the teaching undertaken by them which is of benefit both to students on our courses and local social enterprises.

## Applied Social Studies

### **BA (Honours) Degree in Applied Social Studies**

**Course Leader:**

K. M. Phillips

**Social Work Branch Tutor:**

J. Washington

**Social Administration Branch Tutor:**

R. Quinn

This course currently has 2 branches both leading to the award of the Degree of Bachelor of Arts with Honours in Applied Social Studies. The first year of the course is common and during that year the student must make a choice between the Social Work Branch, or the Social Administration Branch both of which begin in the second year. Facilities such as observational placements will be provided to help students make a choice. Students will be selected for the Social Work Branch through interviews in the third term of the 1st year. 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 Degree. Students choosing the Social Work Branch will complete their studies in four years; those choosing the Social Administration Branch will complete their studies in three years. Work is currently underway to develop additional branches of the degree in Health Visiting and Community and Youth Studies.

**Qualifications for entry:** (a) A General Certificate of Education with passes in five subjects, of which two must be at Advanced level or (b) a General Certificate of Education 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.

#### **1st Year**

**Curriculum:** economics; government and politics; methods of social research; psychology; social history; sociology.

## **2nd Year**

**Curriculum:** moral and social philosophy; public administration; social economics; sociology; social administration; psychology (for social work branch).

## **3rd Year – Social Administration Branch**

**Curriculum:** core papers in social administration; a dissertation; two options from a range of choices. The options include: Economics of Social Policy, Education Policy, Health and Personal Social Services, Housing, Ideology and Social Policy, Management in the Social Services, Sociology of Welfare.

## **3rd & 4th Years – Social Work Branch**

**Curriculum:** Polytechnic based teaching in social work; legal studies; social policy analysis; sociology; psychology; agency based teaching in two concurrent placements and one block residential placement.

### **Assessment:**

In Year 1 students will be assessed on the basis of written coursework. Assessment in the Social Administration Branch of the degree (Years 2 and 3) will be on the basis of unseen examinations plus a dissertation. In the Social Work Branch, assessment will depend on a combination of examinations, essays and the satisfactory completion of practical placements.

**Course duration:** September to June (31 weeks) in each year.

It is proposed to add two further branches in the future: one in Health Visiting and one in Youth Work.

### **Careers in Social Administration**

Although formerly 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.

Graduates in Social Administration 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.

The degree is suitable for entry into teaching, social work and administrative posts 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 post-graduate courses.

### **Careers in Social Work**

Please see entries under this heading for appropriate careers information.

# Social Work

## **Polytechnic Diploma in Applied Social Studies (Post-graduate)**

### **Course Leader:**

B. L. Gray

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 fieldwork experience preferably gained in post.

**Application procedure:** the course begins in September each year. Selection will be by interview and references will be required from academic tutors and a fieldwork supervisor. Information and application forms are obtainable from The Clearing House for CQSW Courses, Myson House, 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; law.

The fieldwork 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 extends over the third term and continues as a block until September. Arrangements are made for some students to remain in one agency for the whole of the fieldwork placement. Discussions regarding placements are held with students, and their preference and experience are fully considered before coming to a final decision. The range of fieldwork placements is fairly wide and it is hoped to extend the opportunities for experience in group and community work.

**Course duration:** September to September (Theory 22 weeks, Fieldwork 21 weeks).

**Assessment:** assessment will be made by periodic evaluation of written work. An oral examination may be required.

## Polytechnic Diploma in Social Work

### *Course Leader:*

R. D. Everett

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 is awarded by the Central Council for Education and Training in Social Work. The aim of the course is to train candidates to become Social Workers capable of working in a number of social work agencies. The course is generic based and will introduce students to social work with a variety of intervention strategies and client groupings. The course is recognised for training for the Probation and After Care Service.

**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 also be required to hold 5 GCE 'O' level passes or preferably 2 'A' level passes; candidates over 25 need not necessarily have formal educational qualifications. They will be expected to show evidence of ability to cope with the academic demands of the course. The Polytechnic may require all candidates to attend for interview, to submit written work or to attend the Polytechnic for academic assessment.

**Application procedure:** Information and application forms are obtainable from the Clearing House for Social Work Courses, 4th floor, Railway Terrace, Rugby, Warwicks CV21 3HT.

**Curriculum:** subjects studied in the Polytechnic include Social Work Method and Practice, Psychology, Sociology, Social Policy and Administration, Law for Social Workers and Medical and Social Aspects of the Care of Disease and Disability. Students will also be required to undertake social work education and training in fieldwork placements. These placements involve about 50% of the students' attendance time on the course. Two of the placements are concurrent with the academic teaching and one is a block placement. Fieldwork teaching is given by professionally qualified social workers, who work in close conjunction with the social work staff of the Polytechnic. The placements are essential components of both first and second years of the course.

### **1st Year**

**Course duration:** September to August. This includes block study in the Polytechnic during term 1; Polytechnic study and fieldwork placement in terms 2 and 3; and a 6-week block placement following term 3.

### **2nd Year**

**Course duration:** September to July. This includes Polytechnic study and fieldwork placement in terms 1 and 2 and block study in the Polytechnic in term 3.

**Assessment:** the final assessment is based on (a) assessment of practical work, (b) assessment of formal written work in Social Work, Social Policy, Sociology, Psychology, Law and Medical and Social aspects of the Care of Disease and Disability. Students must achieve a satisfactory standard in both areas.

### **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:

- (a) 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,
- (b) group work: aimed to help people with common problems by fostering mutual support and encouragement among them,
- (c) 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.
- (d) 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.

## Health Visiting

### **Health Visitor's Certificate**

#### **Course Leader:**

Miss M. M. Poyser

A one year full-time course of combined theoretical and practical training leading to the award of a Certificate in 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 (a) five GCE subjects at 'O' level, or

(b) other approved educational qualifications, or (c) satisfy the Council as to their educational fitness for the course by means of an Entrance Test.\* Confidential Professional reports required. Candidates must satisfy both academic and professional staff of 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, and twelve weeks of supervised practice.

**Course duration:** September to August (51 weeks).

**Examinations:** Internal, externally assessed, and a written group project. Periodic assessment is maintained throughout the course.

**Qualification:** the Health Visitor's Certificate

### **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 where work has five main aspects:

- (a) the prevention of mental, physical and emotional ill-health or the alleviation of its consequences.
- (b) the early detection of ill-health and the surveillance of high risk groups.
- (c) the recognition and identification of need and mobilisation of appropriate resources where necessary.
- (d) health teaching; individual teaching is undertaken by all Health Visitors and those who have a special aptitude may undertake group teaching.
- (e) 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 need as a result of the visit following the statutory notification of birth, but more and more is concerned with problems uncovered in the course of 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 of establishing contact with families or individuals living alone who present a potential risk of physical, mental or social breakdown.

**N.B.** Applicants should note the following points in connection with the course:

1. \*The criteria for selection are outlined above.
2. Early application is welcomed as it is easier for practical work placements to be found.
3. Interview Policy – Selection is by a panel of Health Visitor Tutors, Polytechnic Lecturers and Nursing Officers; a deliberate attempt is made to look at candidates from two points of view – academic and professional fitness.
4. It is no disadvantage if a candidate has applied for other courses.
5. The demand for Health Visitors varies with Area Health Authorities' budgeting.
6. There is no established transfer system to other courses.

7. Established pattern: selected in relation to opportunity.
8. 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 evaluative assessment methods are as comprehensive as possible.
9. Student comments are reported to the Course Committee.

# School of Psychology

**Head of School:** P. Young BA, MSc

## BA (Honours) Degree in Psychology

### **Course Leader:**

Dr. C. D. Smith

A three-year full-time course leading to the award of the Bachelor of Arts Degree with Honours in Psychology. The course has been designed for students considering a career in Psychology and will qualify graduates for entry to the many post-graduate courses available. The first two years concentrate on providing a basic and comprehensive education in Psychology and also include ancillary courses in related areas. The final year gives the student the opportunity to specialise in those areas which he finds interesting and also involves a research project supervised by the appropriate staff specialist. **Graduates of this course are eligible for Graduate Membership of the British Psychological Society.**

**Qualifications for entry:** (a) A General Certificate of Education with passes in five subjects, of which two must be in academic subjects at Advanced level or (b) a General Certificate of Education with passes in four subjects, of which three must be in academic subjects at Advanced level. Candidates for admission to this course will normally be expected to have obtained a pass at Ordinary level in Mathematics. Qualifications deemed by the Polytechnic to be of equivalent standard to those stated in the preceding paragraph may be accepted as satisfying the entrance requirement.

### **1st Year**

**Curriculum:** learning, perception, human information processing, developmental psychology, individual differences, social psychology, laboratory course, biological bases of behaviour, experimental design, analysis of data, mathematical methods\*, computing\* and either sociology or human evolution.

\*not subject to examination.

**Course duration:** September to July (34 weeks)

### **2nd Year**

**Curriculum:** social psychology, developmental psychology, human information processing, cognitive psychology, animal learning and behaviour, personality, psychobiology, abnormal psychology, history of psychology, laboratory course, experimental design/analysis of data and one subject from biology, sociology, linguistics and philosophy.

**Course duration:** September to July (34 weeks)

### **3rd Year**

**Curriculum:** theoretical issues, project and 3 options – the available options are divided into 2 groups and the student must choose one option from each group plus one other option. The first group is developmental psychology, social psychology, abnormal psychology and human motivation, the second group is cognitive psychology, psychobiology, animal behaviour and human performance.

**Course duration:** September to July (34 weeks)

### **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 a national shortage of qualified psychologists the competition for places on these courses is very severe and candidates are normally expected to obtain a good honours degree.

Many graduates remain in the academic world and take a post-graduate course leading to a higher degree by research and then take up teaching or research posts in Polytechnics or Universities. Opportunities for post-graduate research in Psychology are available in the Polytechnic. A degree in Psychology would be considered relevant for post-graduate social work training.

Further information on post-graduate courses and careers in psychology can be obtained by writing to the British Psychological Society, 18-19 Albermarle Street, London W1X 4DN.

An informative booklet on Psychology Degree courses is available from CRAC, Bateman Street, Cambridge.

# School of Language and Humanities

## **Head of School:**

H. E. Probyn, BA (French), BA (Spanish), MPhil

**BA (Honours) and BA (Ordinary) in Humanities** – Poulton-le-Fylde Campus

## **Course Leader:**

H. L. Phillips

## **Introduction**

The programmes of study leading to the award of a BA (Honours) and a BA (Ordinary) provide courses in two normally equally weighted subjects in Years 2 and 3, chosen from three subjects in the first year.

**Qualifications for entry:** Normally, GCE passes in at least five subjects including two appropriate 'A' level passes ('O' level passes must be grades A – C).

Applications from mature students with alternative qualifications will be considered.

## **Outline Structure**

**Year 1** – Three subjects to be chosen from:

French, Geography, History, Linguistics, Economics, Education Studies, English and Political Sciences.

**Years 2 and 3** – Two subjects are continued from those taken in Year 1.

Each subject is studied independently of the others, occupying one-third of the first year course and one-half in years 2 and 3. In the final year, students write a dissertation in one of their two subjects or in an area which spans their chosen disciplines. Further details of the subject content may be obtained from the course brochure, obtainable by writing to, or telephoning, Admissions (BA Hons), Preston Polytechnic, School of Humanities, Poulton-le-Fylde Campus, Blackpool, FY6 7AW. Tel: Poulton-le-Fylde (STD 0253) 884651.

**Admissions procedure:** Standard Polytechnic application forms should be used – see the note on application on page 9 of this prospectus.

**Course duration:** September – June/July (30 weeks).

**Examinations:** Assessment is by a combination of course work, dissertation and examinations; examination papers are taken on the completion of year courses.

**Qualifications:** BA (Hons) and BA (Ord) degrees of the Council for National Academic Awards.

**Careers:** A wide range of career possibilities exist including careers in the public service, the media and industry; entry into teaching and careers in the wider education service will be possible with appropriate post-graduate training. Opportunities in Europe exist for Language graduates with post-graduate training in bilingual secretarial work.

# Secretarial

## Diploma for Bilingual Secretaries (Post-graduate Course)

### *Course Leader:*

D. Swift

*Tutors:* H. E. Probyn, D. Swift

A one year intensive course for graduates in any discipline who have already studied at least one foreign language and wish to train as highly qualified secretaries specialising in languages. The course involves attendance for up to twenty four hours a week at lectures, seminars and tutorials.

*Curriculum:* Language 1, language 2, economics, shorthand, typewriting, office supervision (inc. principles of accounts) office communications, tutorial.

*Course duration:* September to July (34 weeks).

*Examinations:* Appropriate Royal Society of Arts Examinations. Successful students may be eligible for the award of a Polytechnic Diploma.

## Diploma for Bilingual Secretaries (Post GCE 'A' level course)

### *Course Leader:*

D. Swift

A two-year full-time course for those aged 18 years or over with 'A' level or equivalent qualifications who have already studied at least one foreign language.

### **1st Year**

*Tutors:* W. Hackl, T. K. Jenkinson, A. Weymouth, P. Edwards, A. Godfrey, B. Preston

*Curriculum:* practical correspondence (shorthand, typewriting), secretarial practice (including principles of accounts), European institutions, two modern foreign languages from French, German, Spanish, economics, tutorial, residence abroad.

*Course duration:* September – July (34 weeks)

*Examinations:* Internal and external RSA single subjects in shorthand and typewriting.

### **2nd Year**

*Tutors:* S. J. C. Brown, Mrs D. Gibson

*Curriculum:* practical correspondence (shorthand, including foreign shorthand, typewriting), economics, office supervision, two modern foreign languages from French, German, Spanish, tutorial.

*Course duration:* September – July (34 weeks).

*Examinations:* Appropriate Royal Society of Arts Examinations. Successful students may be eligible for the award of a Polytechnic Diploma.

*Career prospects:* There is a wide range of interesting and well paid jobs available at home and abroad for students who have successfully completed one of the above secretarial/linguist courses.

# Modern Foreign Languages for Business

## **BEC Higher National Awards**

**Tutor:** D. Swift

Modern Foreign language study is offered as an option in the two-year full-time course and three-year sandwich course leading to the BEC Higher National Diploma in Business Studies. French, German and Spanish are offered and students select 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 28).

## Journalism

### **Certificate of the National Council for the Training of Journalists: full-time Journalism course**

**Course Leader:**

E. Newell

A one year full-time course designed to give students a practical and academic background before entering the profession. It is the only course offered at a Polytechnic that has the recognition of the National Council for the Training of Journalists, which lays down the syllabus. After successful completion of the course students can expect to be offered posts on provincial newspapers. After suitable practical experience they then take the final part of the examination for the Proficiency Certificate in Journalism.

Entry to the course is through the National Council for the Training of Journalists, and applicants should write to the Director, National Council for the Training of Journalists, Harp House, 179 High Street, Epping, Essex. Interviews and aptitude tests are normally held between March and June. Applicants are advised to apply early in the year in which they are sitting 'A' levels, as only a limited number of students are accepted.

**Qualifications for entry:** applicants must be under 20 years of age on the 1st September and possess two GCE 'A' level subjects and three GCE 'O' level subjects (including English). Entry is by examination and interview by a panel of experienced journalists.

**Curriculum:** public administration, newspaper law, newspaper practice, use of language, shorthand and typewriting.

**Course duration:** September to July (34 weeks).

**Qualification:** exemption from appropriate subjects of the examinations for the Proficiency Certificate in Journalism.

**Careers:** There are about 30,000 journalists working in Britain today. The majority are employed on 140 daily and Sunday newspapers, on 1,200 weekly newspapers, and on more than 4,000 magazines and house journals. A considerable number are employed in television, radio and public relations.

A junior journalist has a wide choice of posts after completing his training. He may move to a larger paper, into television or radio, or into public relations. Salary depends upon ability, which can obtain rapid rewards, and promotion to executive level often comes at a younger age than in most professions. There has been equal pay for women for many years.

# School of Education

## *Dean of School:*

A. B. Butterworth, MEd, DipEd, NFF

## *Senior Tutor, In-Service Courses:*

T. D. Cook, BA, MLitt, FCP

## *Administrative Assistant:*

Mrs D. Coates

## *Courses:*

### *In-service teacher education at Chorley Campus* (unless otherwise indicated)

Diploma of Advanced Studies in Education  
(The Education of Young Children)

Diploma of Advanced Studies in Education  
(Environmental Education)

Diploma of Advanced Studies in Education  
(Teaching of English as a Second Language  
in Multicultural Schools) – Subject to  
validation

Diploma in Drama in Education (Drama  
Board)

Advanced Certificate: Language and Reading

Advanced Certificate: Practical Studies in the  
Urban Environment

Polytechnic Certificate of Advanced Studies:  
Pastoral Care in Schools

One term course:

The Slow Learner in the Ordinary School

There is also a full range of part-time courses  
for teachers, including part-time BEd (Hons.)  
courses and courses leading to Advanced  
Certificates. Full details are in the School of  
Education In-Service Course Handbook  
obtainable from:

The Admissions Office,  
Preston Polytechnic,  
School of Education,  
Chorley Campus,  
Union Street, Chorley.



*Browsing room: Student services*

# General Information

## Student Information

### Provisional Outline Calendar

#### 1980

(at the time of printing the Outline Calendar had been approved by the Academic Board but was still to be considered by the Polytechnic Council).

**Autumn Term** (Total of 13 weeks – 12 weeks for most full-time courses)

Monday, 22 September	Autumn Term begins
Friday, 12 December	Most full-time and sandwich courses close for Christmas
Friday, 19 December	Autumn Term ends

#### 1981

**Spring Term** (12 weeks)

Monday, 12 January	Spring Term begins
Friday, 3 April	Spring Term ends

**Summer Term** (11 weeks)

Monday, 27 April	Summer Term begins
23 May to 31 May	Spring Holiday week
Friday, 10 July	End of session

**N.B.** The above is an outline calendar only. Individual course dates may deviate to some extent from these dates, although most courses will be contained within the outline calendar.

### 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 other than those in the Faculty of Science and Technology. New students in the Faculty of Science and Technology are invited to participate in an induction programme arranged for the Thursday and Friday before the beginning of term. 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 on the Preston campus and from the Admissions Offices on the Poulton and Chorley campuses.

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 fees and grants on page 10 and below.

### Fees

In addition to tuition fees, various fees may be payable in connection with a course, e.g. CNAA or University 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 for the 1980/81 session at the time of going to print. The fees for session 1979/80 will be as shown below. For session 80/81 increases approximately in line with the rate of inflation can be expected.

### United Kingdom Students: Tuition Fees for 1979/80 Session

	30 weeks or more	Two Terms	One Term
<b>Full-time Courses</b>			
MPhil or PhD	£890		
Degree Courses			
Higher National Diploma Courses	£595		
TEC Higher Diploma	£595		
Graduateship of the Royal Institute of Chemistry	£595		
Polytechnic Diploma in Applied Social Studies	£211		
Polytechnic Diploma in Social Work	£211		
SDC in Ceramics 1st Year	£158		
SDC in Ceramics 2nd & 3rd Years	£211		
Foundation Course in Accountancy	£211		
Diploma in Management Studies	£211		
DMS Management for Industrial Production	£211		
Polytechnic Diploma in Building Management & Economics	£211		
Graduate of the Institute of Physics	£211		
Health Visitor's Certificate	£211		
Journalist's Pre-entry Course	£211		
Polytechnic Bilingual Secretary Diploma	£211		
Diploma of Advanced Studies in Education	£595		
In-Service BEd	£595		
CEI Part II		£140.50	£70.50
Polytechnic Certificate of Advanced Studies in Design and Manufacture		£140.50	
BSc Electrical Engineering Bridging Course			£198.50
Foundation Course in Art and Design	£158		
<b>Short Full-time course (18 weeks or less)</b>			
IWM Certificate in Industrial Management	£105.50		
CIPFA Graduate Conversion Course	} £70.50		
Graduate Course in Design and Manufacture			
Polytechnic Certificate of Advanced Studies in Astronomy			
One Term Courses for Qualified Teachers			

Students under age 18 on 1st September will be charged the Students' Union fee only for all courses (see below)

## Overseas Students: Tuition Fees for 1979/80 Session

Full-time Courses	30 weeks		
	or more	Two Terms	One Term
MPhil or PhD			
SDC in Ceramics 1st Year	£1010		
SDC in Ceramics 2nd and 3rd years	£425 £770		
Foundation Course in Art and Design	£425		
All other full-time courses	£770	£513	£257

### Students' Union Fee

The appropriate Students' Union fee will be added to the tuition fees shown above to make a composite fee. These fees are currently £30.60 for full-time and sandwich courses, and £1.20 for part-time day courses (applicable to short full-time).

### CNAA Registration Fees

A registration fee is also 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 £44.00 and £33.00 respectively.

A registration fee of £50.00 is payable at the commencement of CNAA MPhil or PhD by research.

### University of Lancaster Registration, Validation and Examination Fees

The following fees are payable in respect of University of Lancaster courses. (The level of fees indicated is for the 1979/80 session and is subject to annual review)

*Diploma of Advanced Studies in Education:* Validation fee – £36.00

### 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 of the scale of fees are obtainable on enquiry from the Polytechnic Registry on the Preston Campus and from the Admissions Offices at the Chorley and Poulton campuses. Details are also given on examination entry forms where these are supplied.

In the case of University of Lancaster and a few other courses, examination fees are payable together with tuition fees and the procedure for payment is the same as for payment of tuition fees (see page 86). 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-aiding 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.

### 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 any 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 and the Poulton and Chorley Campus Admissions Offices.

### **Permission Vouchers**

Most students enrolling for the Foundation course in Art and Design and SDC Ceramics who are not normally resident in the County of Lancashire will be required to produce permission vouchers from their Local Education Authority. Application for a voucher should be made to the Education Office of the Local Authority in whose area the student lives.

### **Course 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.

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 Students' Union and Polytechnic societies.

Students must conduct themselves in a quiet and orderly manner. They will be held responsible for and required to make good any damage they may cause.

Safety regulations must be observed at all times. To reduce fire risk and avoid general discomfort student must obey the notices prohibiting smoking in specified areas of the Polytechnic. Heads of Subject Areas have authority to restrict smoking within any other part of the accommodation over which they have control.

### **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 office of the Faculty Administrative Assistant.

# Student Welfare

The Polytechnic is aware of the kind of experiences students can face in entering a course of study in higher education. To meet these needs a structure of general and specialised Welfare Services has been developed.

## **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.

# Student Services

**Head:** Miss Frances Higgins MA (Psychol) BA (Soc Admin) DASE (Educ Guid) Dip VG.

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, while 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 the Student Welfare Services are available to assist in these matters and many students make use of these services during their time at the Polytechnic.

## **Accommodation Service**

An increasing number of students attending the Polytechnic are living away from their home area and the Accommodation Officers recognise the importance of trying to provide suitable accommodation for students.

### **Preston and Lancaster**

Currently on the Preston campus, the Polytechnic has a hall of residence with study bedroom facilities for 143 students, and additional residential accommodation catering for a further 29 students. An additional Hall of Residence providing 140 places will be available in 1981. Priority for this kind of accommodation is normally restricted to those requiring seven day provision. However, the Accommodation Officers for the Preston and Lancaster sites are available to assist students in finding other kinds of accommodation. While every effort is made to obtain privately owned flats or houses, the increasing demand for this type of accommodation often makes the position difficult and some students may find they have to accept lodgings with householders.

Accommodation is available in districts surrounding these campuses, but some students may have to be accommodated some distance away. Priority will normally be given to students whose homes are beyond the range of daily travelling to the Polytechnic. Students who are grant-aided will generally be assisted by their supporting Local Education Authorities if their necessary travelling expenses exceed the amount included in the grant.

### **Poulton-le-Fylde**

Around the Poulton campus a wide range of good quality student accommodation of every type is available; lodgings with householders, furnished flats and houses. Students are advised to indicate their needs and preferences when they attend the campus for their first interviews.

## **Chaplaincy Service**

The Chaplaincy exists to serve all members of the Polytechnic, of any faith or none. It seeks to promote the spiritual life of the Polytechnic and to encourage thought and discussion among staff and students on matters of importance to them as human beings.

Chaplains of all the major Christian denominations have been appointed by the Polytechnic in conjunction with the Churches; they work together to encourage and stimulate the growth of the Christian community within the Polytechnic; to promote discussion among all who are concerned about the human situation and about our role as members of the Polytechnic; and to create opportunities for Christian worship where these are appropriate.

The change from school life to student life presents many opportunities and challenges to people to question long held beliefs, to discover new beliefs, to renew and affirm beliefs. The Chaplaincy seeks to provide a framework within which some or all of these things can take place.

## **Counselling service**

The Counselling Service is available to help students with personal, social, emotional or educational needs and vocational/career choices and decisions. ***It is strictly confidential service.*** Often the transition from school to student life, coping with a new course of study, making new friendships, can make extra demands on students and to have someone to turn to, with whom they can talk over their feelings or anxieties can be or real help. Sometimes the difficulties one experiences can be deeper and more long standing – feelings about one's worth and value, confidence in one's ability to cope with academic expectations, personal or family stress and problems, or doubts about the future. In assisting students to cope with needs or difficulties, the aim of the service is not one of imposing values or solutions, but rather providing the opportunity for a person to explore their needs or situation more clearly and facilitate the student's own means of coping, or arriving at a decision. Sometimes a single interview with the Counsellor may be sufficient but where more serious difficulties are experienced it is often helpful for counselling to continue for a longer period.

The main approach of the service is through individual or group counselling but opportunities are also offered to students wishing to develop relationship skills or improve study habits.

## **Careers**

Careers information and choice is another important aspect of the Counselling Service, which is available to students at any time during their studies at the Polytechnic and they are encouraged to use its resources before their final year.

A Careers' Information Room on the Preston Campus, provides a wide range of information on occupations and professions, employers and the opportunities they offer and on undergraduate and postgraduate courses in Polytechnics and Universities.

Interviews with the Counsellors allow for informal discussion and the opportunity to talk over uncertainties, develop plans for personal career exploration and make informed choices and decisions.

A series of careers' talks and films are arranged for the autumn term of each session.

For students seeking assistance in finding a first appointment on completion of their course, the Counselling Service arranges interviews on the campus with employers. Visits to employers can also be arranged for exploratory interviews.

The service is also available to those students who do not complete their course and assistance is given in exploring alternative opportunities.

## **Health Service**

Polytechnic doctors and a nurse are available regularly during term time to act as the students' GP 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.

**Note:** Further information about the services on each campus is sent to students before the beginning of the session. Details of staff and Services on each Campus are given in the staff list at the end of this prospectus.

# Services offered to Schools and Industry

## ***Educational Liaison Officer:***

G. A. Redhead BSc, DipEd

### **Advisory Service for Schools and F.E. Colleges**

Pupils frequently need information and advice about courses available at Preston and Polytechnics generally, and the Educational Liaison Officer is willing to assist the careers staff in this respect. Another of his functions is to establish and maintain personal contacts between the staff of schools and their colleagues in the Preston Polytechnic.

Visits of small or large groups of Fifth and Sixth Form pupils to the Polytechnic are welcomed. Alternatively, staff of the Polytechnic will gladly visit schools to talk about courses and life in the Polytechnics, to lecture on their own specialist subject or to assist at careers events. Careers staff are invited to contact the Educational Liaison Officer to discuss suitable arrangements.

### **Service to Employers and Employees**

Employers or employees who require information and advice about Polytechnic courses should contact the Educational Liaison Officer who can provide a link between the management of commercial and industrial establishments and staff of the Polytechnic. Employers are encouraged to make known their views on possible courses whenever they feel the Polytechnic can be of service.

The Educational Liaison Officer will be pleased to arrange visits by employers to the Polytechnic to meet staff and see the available facilities. These include equipment used in advanced teaching and research which may be made available to industry in certain circumstances. The Polytechnic will be happy to assist in the solution of technical problems. Additionally, employers may wish to collaborate in student projects or to offer sandwich course placements. The Educational Liaison Officer is available to visit companies at their convenience for discussions.

# Students' Union

Chorley Site, Union Street, Chorley.  
Phone Chorley 5811.

Poulton Site, Breck Road, Poulton-Le-Fylde.  
Phone Poulton 884095.

Preston Site, Students Union Building, Fylde Road, Preston.  
Phone Preston 58382.

The Union is a single democratic organisation, covering all three sites of the Polytechnic. If you become a student on either of the three sites you automatically become a member of the Union. The Union is the official representative body of the students. Its functions can be said to cover four main areas:

1. Representation on all internal and external bodies.
2. Secondly the campaigning side, where the Union's major work is in seeing that all students are given a greater insight into the education system under which they are studying and that students together can campaign on such issues that directly face them, e.g. grants and accommodation.
3. The third area is the welfare function of the union, whereby certain services are provided by the Union organisation. Some of the major areas covered by Union Welfare are those provided nationally by the N.U.S. and also N.U.S. Insurance (Endsleigh) and N.U.S. Marketing. In addition the Union gives welfare advice on such questions as grants, accommodation or any matter which causes members concern.
4. The fourth area is the social side of the Union, e.g. Social events, discos, dances, folkclub, film nights etc., these are promoted for the general enjoyment of the membership. This area also covers clubs and societies for those who may have special interests outside the general social field of the Union. These clubs and societies may become affiliated to the Union and receive a grant to carry out their activities.

Union membership cards are issued at enrolment. The possession of a membership card enables students to participate in social activities, to join any student club or society and to vote in elections, union meetings and other activities.

**Union Premises:** In January 1978 a central union building was completed on the main Preston site. This building has general office facilities for the running of the union and recreational facilities. i.e. Bar, Games Rooms, Dance Hall, Meeting Rooms, etc., to serve the general requirements of the students. On the Poulton-Le-Fylde Campus there is a bar and communal area known as the Shippon, whilst the Chorley Campus has similar facilities in the Union Street, Premises.

**National Union of Students:** This is the national organisation representing some 1,000,000 students in educational institutions of all kinds and sizes. It has a permanent staff and offices and negotiates with the Department of Education and Science on behalf of students both collectively and individually. It is an effective source of information on all aspects of student life and will deal with student problems individually through the union officers within their particular institution.

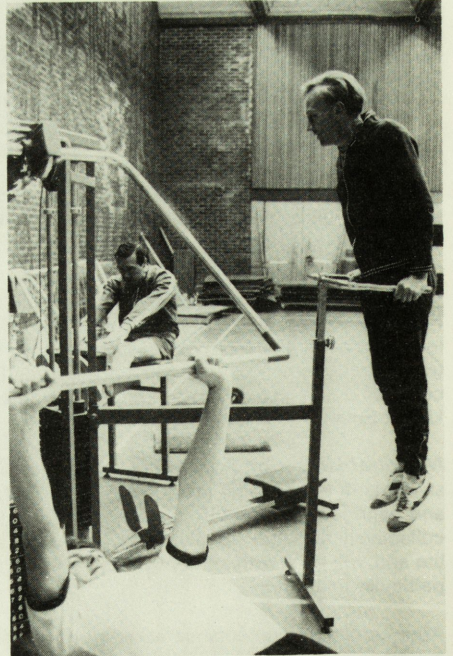
After enrolment students are asked to go to their respective union offices where they may collect their N.U.S. membership card. All enquiries regarding student activities should be addressed to the President at Preston.



*Outdoor activities*



*Gymnasium facility*



*Gymnasium facility*

# General Studies Unit

## *Head of Unit:*

R. H. Hodson, STAC, FIAL

The General Studies Unit exists to facilitate the recommendations of the General Studies Committee of the Academic Board. This Committee is drawn from all Faculties of the Polytechnic. Its function is one of liaison and the review of the demand for elements identifiable as general studies within courses.

Since 1967, Residential Courses, both integrated and optional, have been arranged in conjunction with course committees, as a regular and important part of their course provision.

The Unit also organises public lectures and conferences. A particular feature of its work is SERIES 5. This programme of public lectures provides a platform in the North West for distinguished people to speak either officially or personally on important issues of the day.

# Physical Education and Recreation

## *Head of Section:*

J. Montgomery, BEd, DipPE, DipSpEd

The section is centred at Preston but also has excellent facilities at Poulton. The following activities are catered for:

Badminton, basketball, canoeing, sailing, cricket, fencing, five-a-side football, judo, karate, yoga, mountaineering, netball, gymnastics, tennis, soccer, rugby, hockey, table tennis, trampolining, volleyball, weight-training, jogging, and fitness training.

Instruction is given by qualified coaches. The Students Union run their own sports clubs through the Sports Council and the opportunity exists to participate in the British Polytechnic Sports Association competitions.

Academic work includes contributions towards an inservice degree for teachers (BEd(Hons.)) and an Advanced Certificate Course in mental handicap.

Adjacent to the sports hall is a human performance laboratory which is used for research into exercise and which forms the centre for a cardiac rehabilitation programme run by the section, providing the local community with a unique service. Students who require advice on health and fitness are welcome to consult members of the staff.

The Polytechnic is situated within easy reach of the Lake District National Park and a variety of outdoor activities are available. A well equipped sailing centre at Southport is a very attractive feature of the recreational facilities.

# Polytechnic Arts Centre

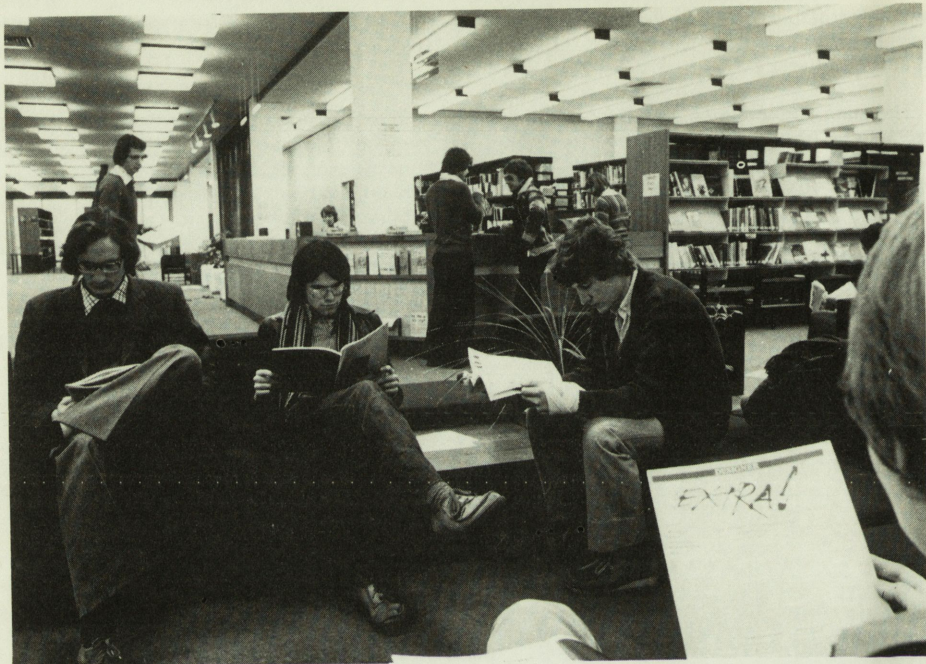
The Polytechnic Arts Centre opened in 1976 is a renovated Church building. 'St. Peter's' was an Anglican neo-gothic Church designed by the Liverpool architect Rickman and opened in the Guild year of 1822. The present building has retained the architectural elegance of the



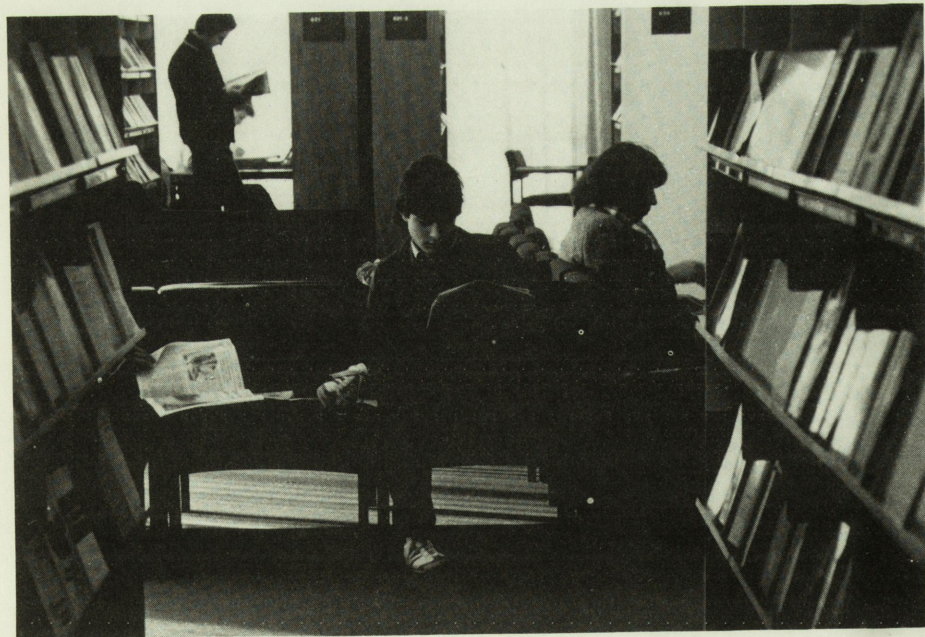
*Arts Centre and Library*

original structure including the cast-iron work which was a special feature of Rickman's designs. The building is shared with the inter-denominational Chaplaincy who use the former chancel and vestry.

The main auditorium is used both in the evenings and on certain lunchtimes for a mixed programme of professional and amateur events. These range from classical, folk and jazz concerts to dance and drama productions. The north aisle is used for a constant series of exhibitions of varying subject matter including works by regional and national artists, exhibitions of architectural and historical interest, photographic and craft work. The building also offers practice and rehearsal facilities for the Polytechnic's own cultural activities – a choir, a brass band, a jazz/rock group and a guitar workshop and all are actively engaged. Anyone requiring further information should contact the Manager (telephone extension 275).



*Quiet area: Library*



*Periodicals: Library*

# The Library and Learning Resources Service

*Librarian:* J. R. Edgar, MA, FLA

It is increasingly a feature of higher education that students are required to develop habits of independent learning; greater emphasis is placed on the student working on his own, reading the literature of his subject with an alert and critical mind. The Polytechnic is therefore developing an up-to-date Library and Learning Resources Service (LLRS) which aims to provide a dynamic user-oriented service rather than one which merely acts as a collector and organiser of materials.

Nowadays information and ideas of direct relevance and interest to the students and staff of the Polytechnic are published not only in the traditional way (books and journals), but in an increasingly diverse range of media, including audio and video tapes, slides records, films etc. These and other media are being added to stock in increasing numbers in response to the educational and research needs of the users of the LLRS.

There are four libraries serving the needs of the Polytechnic. Science, Technology, the Social Sciences and Art are well represented in the stock of the Preston Campus Library reflecting the needs of the courses based at Preston. The Preston Incorporated Law Society has deposited its collection with the Polytechnic and this is also housed in the Preston Campus Library adjacent to the Polytechnic's own Law Collection. A small Library is maintained at the Storey Institute, Lancaster, to cater for the Art Students attending courses held there. The Libraries at the Chorley and Poulton-le-Fylde Campuses each have good collections in the fields of Education, the Humanities and the Social Sciences, again reflecting the needs of the courses held at these campuses.

Membership of the LLRS is open to all staff and current and former students of Preston Polytechnic and to members of Preston Incorporated Law Society. Under a reciprocal agreement students and staff of Lancaster University are also eligible for full membership. Staff and students of other colleges, staff of central and local government departments, of industry and commerce and members of the general public are able to use the libraries for reference purposes. Further details of these facilities are available on request.

All new students are offered an introductory visit to the Libraries. 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 Art, Business Studies and Law, Education, Humanities, 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 LLRS 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 and articles in heavy demand, a collection specifically for part-time students, a film-hire service, provision of translations of journal articles in foreign languages and searches of information held on computer data bases are among the other services offered.

All new materials added to the stock of the four Polytechnic Libraries and an increasing proportion of the older stock is recorded in the computer-produced microfiche catalogue, copies of which are available for consultation at each library.

A large new LLRS building opened on the Preston Campus in January 1979 alongside the Polytechnic Arts Centre and the new Students Union. Nearly 650 reader places, including study tables, drawing tables, carrels, and easy chairs in informal groups are included on its three floors. In addition a classroom fully equipped for audio-visual use, two seminar and two

tutorial rooms and several sound-proofed carrels are provided. Enquiries Desks are manned by professional librarians on each of the three floors.

The total resources of the LLRS, amounting to over 220,000 volumes and over 2,300 current periodical titles are supplemented by co-operative arrangements with other local libraries, and by access to the national inter-library loan network via the North West Regional Library system and the British Library Lending Division at Boston Spa, Yorkshire.

Preston is particularly well provided with public libraries. The headquarters of the Lancashire Library, with its Technical Information Centre, large non-fiction lending collection and music and drama library, is located in Corporation Street, just a few hundred yards from the Main Polytechnic Campus. The former Harris Library (now Preston District Central Library) is also administered by the Lancashire Library and houses large fiction and non-fiction lending collections, a reference library and a record lending library.

Further information about the use of the Polytechnic Libraries is available from the Service Desks.

# Computer Unit

## *Head of Computing:*

D. W. Walsh, BSc, MSc, MBCS

General purpose computing facilities are centralised within the Polytechnic and are available to all sections of the establishment for teaching, research and administration. The Computing Unit is responsible for these resources and provides facilities for a wide range of uses.

Computers have had a profound effect on the working of modern industry, government, commerce and the professions. Traditional activities in these areas have been radically altered by the introduction of automated techniques and many recently qualified people will become involved in some way with these machines during their working lives. Consequently Computing is taught on many advanced courses and students are encouraged to apply computing methods to investigate situations in their main subject disciplines. The Computing Unit seeks to provide an effective and interesting environment in which computing machinery may be used as an integral part of students education. Staff are available to advise and assist users to prepare data and programs so that the operational procedures may be simplified as much as possible. In addition, seminars and short courses on various specialist computing matters are provided from time to time as appropriate.

At the present time (Spring 1979), computing facilities are based on two machines, a general purpose ICL 2904 machine and a specialist multi-access PRIME 300 machine supporting up to 24 terminals concurrently. However, plans are at an advanced stage to enhance these machines and with the approval of the Education Committee it is expected that extensive additional multi-access facilities will become available during 1979/80 and will support a wide range of programming languages, graphics facilities and applications packages.

As a fundamental part of the development of computing services, the Polytechnic is converting a large central area into a Computer Suite, comprising a new computer room, user laboratories and support services. This specialist accommodation and the planned extensive new computing facilities will provide a major educational facility in the Polytechnic.

The Polytechnic assists local schools and colleges to introduce computing and computer programming into curricula. recently several schools and colleges have commenced formal courses leading to computing qualifications at GCE and CSE levels. A large number of schools and colleges are involved in this project and the Unit provides visits to the computer room and regular demonstrations as well as advice and documentary information. Further details of schools facilities may be obtained directly from the Computing Unit. The local branch of the Computer Education Group, which is a national organisation for computing teachers, meets regularly at the Polytechnic. Again, details can be obtained from the Computing Unit.

The Unit remains open for users during term times, Monday to Thursday 9.00 am to 8.45 pm and on Friday 9.00 am to 4.30 pm.

Facilities are generally available to all members of the Polytechnic and some facilities can be extended, subject to certain limitations, to other educational institutions, business concerns, government organisations and members of the public.

Further information may be obtained from the main computer suite on the Preston campus.

Computer reception is at G.36, telephone extension 243.

# The Centre for Educational Technology

## *Head of Centre:*

D. H. Ormerod, DipEd, MEd

The Educational Technology Service of the Polytechnic is based in the Educational Technology Centre situated on the Chorley Campus. Complementary resources are available on the Preston and Poulton-le-Fylde Campuses.

The Service is concerned to provide support for the development, application and evaluation of systems, techniques and aids to support teaching and learning and offers an advisory service in the design of educational materials, production services in a range of media and a comprehensive loan service covering a wide range of audio-visual equipment.

Facilities are offered for the recording of non-copyright broadcast radio and television programmes and replay equipment is maintained in a number of locations to allow the use of video-taped illustrations in teaching. The Educational Technology Centre houses a range of sophisticated production equipment including a television studio which is currently being upgraded to provide for high quality colour productions, a 16mm film unit, photographic and print facilities etc. A mobile control vehicle is available which can provide a full television production system on location.

Materials developed by the Centre for use within the Polytechnic have a wide application and film and television programmes produced in the Centre have achieved international distribution.

The Centre organises seminars and workshops to familiarise academic staff with the application and operation of new equipment and techniques, and links are maintained with local schools and industry via short courses and a consultancy service. Production work for external bodies is undertaken, subject to appropriate conditions.

The Centre is open on weekdays from 9.00 am until 5.15 pm and visitors are welcome to view the facilities available and discuss their potential applications. A 'Directory of Services' is available and copies of this and other information can be obtained by ringing Chorley 5811 extension 273.

# Lancastrian School of Management

## ***Dean of School:***

E. K. Langham, BSc (Econ), CEng, MIMechE, FIProdE FBIM

## ***Assistant to the Dean:***

J. E. C. Hiley, BSc (Econ), MIPM.

## ***Administrative Assistant:***

Mrs S. B. Holt

Centred on the Preston Polytechnic, the Lancastrian School of Management is responsible for the co-ordination and development of the comprehensive range of Management education and training services sponsored by the Lancashire and Wigan Education Authorities. Residential and day Courses in numerous subject areas cater for the needs of all levels of management. The school offers a full consultancy service and will undertake research assignments in the management field.

Organisations can take advantage of the programmes offered or have courses specifically designed to meet their individual requirements.

Borwick Hall Management Centre, the residential centre for the Lancastrian School of Management offers excellent lecturing and seminar accommodation in purpose built accommodation. The Hall is situated at Borwick, near Carnforth, close to the M6 Motorway and offers full residential and catering facilities.

The Management Centre is available to organisations for any of the planned courses or they may use the facilities for their own development programmes.

For further details please contact:

C. W. Cunliffe,  
Head of Short Course Unit,  
Lancastrian School of Management,  
Preston Polytechnic. (0772) 59477  
or

**Borwick Hall Management Centre**

Tel. (0524) 73 4500

# University of Toronto

Faculty of Education

Department of Educational Psychology

128 St. George Street, Toronto, Ontario

M5S 1A5

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Fax: (416) 978-2801

Internet: <http://www.utoronto.ca/education>

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Web: <http://www.utoronto.ca/education>

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Canada

# Staff List

## Index

Directorate	106
Polytechnic Secretary	106
<b>Faculty of Art and Design</b>	107
<b>Faculty of Science and Technology</b>	108
School of Construction and Urban Studies	108
School of Electrical and Electronic Engineering	108
School of Mechanical and Production Engineering	109
School of Sciences	110
School of Mathematics, Statistics and Computing	111
<b>Faculty of Business and Management</b>	112
School of Accounting and Finance	112
School of Economics and Business Studies	112
School of Law	113
School of Management Studies	113
<b>Faculty of Social Studies and Humanities</b>	114
School of Social Studies	114
School of Language and Humanities	115
School of Psychology	116
<b>School of Education</b>	117
Research Assistants	119
<b>Services</b>	120
Library and Learning Resources Service	120
Computer Unit	121
Centre for Educational Technology	121
Student Welfare Services	122
Administration	123
Physical Education Section	124
General Studies Unit	124

### Key

PR denotes 'based at Preston Campus'  
C denotes 'based at Chorley Campus'  
PO denotes 'based at Poulton Campus'  
LA denotes 'based at Lancaster Annex'

\*Indicates Head of Division

\*\*Indicates Acting Head of Division

**Note:** The staff list was drawn up on 30th April 1979. It incorporates new appointments known at that date.

## Directorate

**Director** H. D. Law, BA, PhD, CChem, FRIC  
**Deputy Director** S. Skidmore, BSc, PhD, CChem, FRIC  
**Assistant Director** R. H. Eaton, BA, BSc, (Soc), MA, DipEd

## Polytechnic Secretary

**Chief Administrative Officer and Clerk to the Polytechnic Council** T. G. Goodwin, MA (Cantab), MA (Lancaster), PGCE

# Faculty of Art and Design

## *Dean of Faculty:*

T. Metcalfe ARCA, ASIA

PR

THREE DIMENSIONAL DESIGN

## *Principal Lecturer:*

*Assistant to the  
Dean of Faculty*

L. Penrice ARCA

PR

## *Senior Lecturers*

H. G. Green, FRSA

LA

E. W. Teasdale, NDD, ATD

LA

## *Lecturer II*

J. H. Birchall, DFA, MPhil, MA (RCA)  
PhD (RCA)

LA

## GRAPHICS

### *Principal Lecturers*

\*A. G. Livingston, MSIA, MSTD, MSDI

PR

G. F. Hollingworth, NDD

PR

P. Peacock, NDD, ATD

PO

## FINE ART

### *Principal Lecturers*

\*J. W. Bailey, DFA

LA

P. A. Downing, ARCA

LA

A. D. Powell, CertRAS

LA

### *Senior Lecturers*

R. E. Bray, NDD, FTC

PR

A. J. S. Brook, AIIP

PR

P. T. Hastings

LA

K. D. Hicks, ARCA

PR

G. R. Parry

PR

A. H. Thompson, ARCA

PR

### *Senior Lecturers*

H. M. Ball, NDD, ATC

LA

D. Hill, NDD, ATD, CertEd

PO

J. G. Hill, NDD, ATD, AdvDip  
(Art Education)

PR

E. Holmes, ATD, NDD

C

D. Q. King, MFA (Carnegie Inst. of Tech)

LA

### *Lecturers II*

R. B. Casey, SIAD

PR

J. W. Hodgkinson, DipAD, MA (RCA)

PR

### *Lecturers II*

G. R. Fletcher, DipAD

PR

B. Midgeley, DipAD, HDA

LA

W. Sharp, MA, NDD

LA

### *Lecturer I*

D. H. Roberts

PR

## FASHION AND TEXTILES

### *Principal Lecturer*

\*Mrs. M. G. Stockdale, DesRCA

PR

## HISTORY AND THEORY OF ART AND DESIGN

### *Principal Lecturer*

### *Senior Lecturer*

Mrs J. M. Thompson, DesRCA

PR

\*J. S. Lane, BA, MLitt

PR

### *Senior Lecturer*

### *Lecturers II*

M. Dawber, DipAD, MA

PR

S. I. Reid, BA

PR

Mrs C. Scott, BA, Higher Diploma  
(Textiles)

PR

I. Harrow, BA

PR

### *Lecturers II*

J. Calcutt, MA (Edin), MA (Lond)

PR

P. N. Humble, BA

PR

# Faculty of Science and Technology

## Dean of Faculty:

J. J. Betts, BSc, PhD(Birm), PhD  
(Cantab), CChem, FRIC

PR

## SURVEYING AND PLANNING

### Principal Lecturer

\*C. Emmott, BSc, FRICS, FRGS, MIEnvSc PR

## SCHOOL OF CONSTRUCTION AND URBAN STUDIES

### Head of School:

T. M. Ryan BSc(Est Man), FRICS, FIOS PR

### Senior Lecturers

K. E. Davis, ARICS, AIQS, AMCT PR

G. S. Holden, MSc, CEng, FIMunE PR

D. M. Horsley, ARICS, AIQS PR

Mrs A. M. Mackeith, MA, DipTP, MRTPI PR

D. A. Wilde, ARICS, AIQS PR

## CONSTRUCTION

### Principal Lecturer

\*W. H. Roberts, MIOB, ACSI, AICW,  
FBICC PR

### Lecturers II

P. Allouis, DPLG, MOGE PR  
R. C. Smith, AIQS PR

### Senior Lecturers

J. C. Angell, Dip, Arch, ARIBA PR

S. R. Cardwell, DipTechSc, FIOB, FIAS PR

B. Carter, BSc (Tech), CEng, MICE PR

W. H. Davies, MIOB PR

T. Lonsdale, CertEd, DPM, MIOB,  
MIPM, AMBIM PR

M. J. Murray, MIHVE PR

J. M. Patchett, MIOB, CertEd PR

J. A. Tinker, BSc, MSc, MIOB, MIEnvSc PR

## SCHOOL OF ELECTRICAL AND ELECTRONIC ENGINEERING

### Head of School:

A. Palmer, BSc(Tech), CEng, MIEE

## ELECTRICAL ENGINEERING

### Principal Lecturers

\*P. M. McEwan, MSc, PhD, CEng, MIEE PR

R. O. Hall, BScTech, CEng, MIEE PR

### Lecturers II

D. A. Evans, MIOB, AIQS PR

A. J. Warrington, MIOB, TEng (CEI) PR

### Senior Lecturers

R. N. Abbott, BSc, CEng, MIEE PR

J. A. Askew, MSc, CEng, MIEE PR

W. S. Kirkpatrick, CEng, MIEE PR

H. S. Senior, BSc, MSc PR

### Lecturer II

I. Thomas, BSc, PhD PR

## ELECTRONIC ENGINEERING

### *Principal Lecturer*

\*M. F. McKenna, BSc, PhD, CEng, MIEE PR

### *Senior Lecturers*

T. H. Cowperthwaite, CEng, MIERE PR  
 T. G. Izatt, MA, MSc, CEng, MIEE PR  
 N. T. Slater, BSc, CEng, MIEE PR  
 G. Stevenson, BTech, MPhil PR  
 T. Wilson, BSc, CEng, MIERE PR

### *Lecturers II*

J. D. Heys, BSc, MPhil PR  
 R. G. Preston, BSc PR

## SYSTEMS AND INSTRUMENTATION

### *Principal Lecturers*

\*R. J. Simpson, BTech, MSc, PhD, CEng, MIEE, MInstMC PR  
 T. J. Terrell, MSc, PhD, CEng, MIEE PR

### *Senior Lecturers*

H. Duckworth, MSc, CEng, MIEE PR  
 A. Leadbetter, BSc PR  
 D. J. Hitchings, BSc, MSc, PhD, CEng, MIEE PR  
 R. Stanway, BSc, MSc PR

### *Lecturers II*

G. Collins, MSc PR  
 M. Justice, BSc, PhD PR

## SCHOOL OF MECHANICAL AND PRODUCTION ENGINEERING

### *Head of School:*

D. M. Clapp, BSc(Eng), PhD, CEng, MICE, FIMechE PR

## MECHANICAL ENGINEERING

### *Principal Lecturers*

\*J. Tirrell, BSc, CEng, MIMechE PR  
 P. Tucker, BSc (Tech), MSc, AMCST, CEng, MIMechE PR

### *Senior Lecturers*

N. G. Allen, BSc PR  
 R. H. Bryan, MSc, CEng, FRAeS PR  
 D. R. Kerr, MA PR  
 M. J. Manning, BSc, CEng, FRAeS PR  
 J. R. Nuttall, MSc PR  
 A. Ottewell, BSc, AIM PR  
 E. H. Smith, BSc, MSc, PhD PR  
 R. H. Vyas, MSc, AIM PR  
 M. A. Wahhab, BA, BSc, DIC, CEng, MIProdE, MIF, MIMechE PR

## PRODUCTION ENGINEERING AND DESIGN

### *Principal Lecturer*

\*P. C. de Santos, BSc, CEng, MIProdE PR

### *Senior Lecturers*

J. A. Burton, MSc, CEng, MIMechE, MIProdE PR  
 R. W. Cliffe, BSc, AMBIM PR  
 J. N. Greenhow, MSc, CEng, MIProdE PR  
 R. Hatton, CEng, MIMechE, MIProdE PR  
 M. G. Hodkinson, BSc, PhD, MIED PR  
 A. Murray, MPhil, CEng, MIMechE, MIProdE PR  
 J. R. Smith, BSc, MSc, CEng, MIMechE PR

## INDUSTRIAL TECHNOLOGY

### Senior Lecturers

\*F. Tattersall, CEng, MIMechE, MIProdE PR  
K. Bennett, CEng, MIMechE, AMIED PR  
F. J. McIntyre, CEng, MIProdE PR  
J. E. Meadows, CEng, MIMechE, DASTE PR  
G. Podmore, CEng, MIMechE, AMIED PR

### Lecturer II

J. Muskett, BSc PR

## SCHOOL OF SCIENCES

### Head of School:

A. M. Short, BSc, PhD, MInstM, PR  
FInstP

## CHEMISTRY

### Principal Lecturers

\*D. Brattan, BSc, PhD, CChem, MRIC PR  
J. Donnelly, BSc PR

### Senior Lecturers

J. W. Dodd, BSc, PhD, CChem, MRIC PR  
G. Dyer, MA, DPhil PR  
K. Edgar, MSc, PhD, CChem, MRIC PR  
J. D. Hepworth, BSc, PhD, CChem, FRIC PR  
A. D. Jones, BTech, PhD, CChem, MRIC PR  
D. Mason, BSc, PhD, CChem, MRIC PR  
G. Newton, BSc, PhD PR  
B. M. Smallwood, MA, PhD, CChem, PR  
MRIC

### Lecturers II

R. G. Brown, BSc, PhD PR  
C. J. Mortimer, BA, PhD PR

## BIOLOGY

### Principal Lecturers

\*M. Edmunds, BA, DPhil PR  
P. A. Doughty, BSc, Teacher's Cert, PO  
DipRuralEd  
F. Ramsden, MA, FIMLT, FRSH, PR  
LIBiol, LRIC

### Senior Lecturers

J. F. Brown, BSc, PhD PR  
R. Cotton, BSc, PhD, GradMinst of Env. PR  
Science  
E. H. Evans, BSc, PhD, (Mrs) PR  
L. H. G. Morton, MSc, PhD, MIBiol PR  
G. W. Roper, BSc, BA, MSc, DipEd PO  
C. J. Sutherland, BSc, PhD PR  
J. J. Waring, BSc, PhD, ARIC, MIBiol PR  
R. D. Wilson, BA, MA, PGCE, LIBiol PO

### Lecturer II

P. C. Foster, BSc, PhD PR

## PHYSICS AND ASTRONOMY

### Principal Lecturers

\*A. Christy, BSc, PhD, MInstP PR  
A. R. Curtis, MSc, PhD, ARSC, MInstP PR

### Senior Lecturers

P. A. Bates, BSc, PhD, MInstP PR  
P. R. Bissell, MSc, PhD, MInstP PR  
A. R. Howells, BSc, MInstP PR  
G. R. Marr, MSc, MInstP PR  
D. R. Peck, BSc, PhD, MInstP PR  
M. Rhodes, BSc, PhD PR  
E. I. Robson, BSc, PhD, FRAS, MInstP PR  
C. H. Scott, MSc, FRAS PR  
E. Webster, BSc, PhD, MInstP PR

### Lecturers II

I. Butchart, BSc, MSc, FRAS PR  
M. C. Holmes, BSc, PhD, MInstP PR  
R. W. Chantrell BSc, PhD PR

**SCHOOL OF MATHEMATICS,  
STATISTICS AND  
COMPUTING**

**Head of School:**

D. W. Walsh, BSc, MSc, MBCS PR

**MATHEMATICS AND  
STATISTICS**

**Principal Lecturers**

\*D. Stelling, BSc (Maths), BSc (Physics),  
MSc, FSS PR

J. S. Moorman, BSc PR

**Senior Lecturers**

G. J. Blackledge, BSc PR

Miss J. Bradwell, BSc, PGCE PR

I. E. Cooke, BSc, PhD PR

D. Haslam, BSc PR

V. P. Marston, BSc, MSc, AIS PR

D. A. Parker, BA, PhD, FRAS PR

L. R. Peace, MA, AFIMA, AIS, FSS PR

J. D. Rimmer, BSc, MSc, MBCS PR

E. Taylor, BSc, DipStats PR

J. B. Wignall, BA, MSc, AFIMA PR

**Lecturers II**

P. Cockram, BSc, MSc PR

M. J. Grannell, BSc, PhD, ARCS, DIC,  
GradIMA PR

Mrs C. H. Lonsdale, BSc, MSc PR

R. L. Pickering, MSc PR

Mrs S. M. Weir, BSc PR

**COMPUTING**

**Principal Lecturer**

\*W. M. Walmsley, BSc, MSc, PhD PR

**Senior Lecturers**

M. Hind, BSc PR

H. S. Jackson, BSc, PhD PR

W. D. Nash, MBCS, AIDP PR

A. F. Woodhurst, MSc PR

**Lecturers II**

F. Fowler, MDPMA, MBCS PR

W. R. Madill, MA PR

# Faculty of Business and Management

## Dean of Faculty:

B. G. Booth, BA (Econ),  
MSc, FSS

## SCHOOL OF ACCOUNTING AND FINANCE

### Head of School:

R. W. Wallis, BCom, IPFA

### Principal Lecturers

G. D. Donleavy, MA, FCA, AMBIM  
M. H. C. Lunt, BCom, MCom, FCA  
I. R. Dalzell, MA, ACA  
E. Schofield, BA (Com), ACIS  
P. G. Strudwick, BA, IPFA  
H. Warburton, BA, FCA, ATII

### Senior Lecturers

R. A. Blackburn, BSc (Econ), ACA  
M. J. Connolly, ACA  
A. G. Cottom, MSc, ACMA  
M. Edwards, BA, IPFA  
M. J. English, FCA  
R. H. Gray, BSc (Econ), ACA  
R. J. Hudson, BSc (Econ), ACCA  
J. Isherwood, AIB  
D. Murphy, BSc (Econ), ACA  
F. W. Shakespeare, IPFA, ARVA  
Miss J. Thompson, BSc, ACA  
M. A. Thompson, BSc (Econ), MSc,  
ACMA  
G. K. Woodhall, FCA, IPEA

### Lecturers II

J. P. Boylan, MA, ACA, CertEd  
C. B. Eaves, BA (Econ), ACA  
A. W. H. Ward, ACA, Teacher's Cert  
R. P. Wraith, ACMA

## SCHOOL OF ECONOMICS AND BUSINESS STUDIES

### Head of School:

Professor F. Livesey, BA (Econ)

### Principal Lecturers

G. C. E. Neill, BA, PhD  
N. W. Protheroe, BA, MA (Econ), ACIS  
P. Hewitt, BSc, MTech  
A. G. Rooney, BSc (Econ), MPhil

### Senior Lecturers

G. B. J. Atkinson, BA, Med  
J. Brooks, BSc (Econ), MSc (Econ)  
D. Clusky, BA, MCom, AIB  
Mrs V. A. Gunn, BA  
S. M. Haddock, BA, MA, MInstM  
J. Hampson, BSc (Econ), MA (Econ)  
M. R. Hynes, BA, MPhil, MIPM  
J. M. Kidd, BA, MA  
W. Kitchen, BA (Com)  
E. Rosbottom, BA (Econ), MA (Econ)  
V. J. Seddon, BA, MSc, FSS  
J. R. Topping, BSc (Econ), FRGS, ACIS  
T. Watkins, BA (Econ), MSc, MInstM,  
AMBIM

### Lecturers II

D. B. Bagley, BA  
R. I. Brandon, BA, MA  
J. H. Butel, BSc (Econ), MSc (Econ)  
P. M. Garside, BA, MA, MInstM  
P. E. Lewin, BA, MA  
I. McGowan, MA

## SCHOOL OF LAW

### *Head of School:*

Mrs P. A. Thomas, LLB, LLM

### *Principal Lecturers*

B. A. Ball, LLB, LLM

C. J. Carr, MA, BCL

P. Clark, LLB

### *Senior Lecturers*

A. Blake, BA, LLM

A. D. Culley, LLB

P. J. Gaule, BCom

R. J. Gownes, LLB, Solicitor

J. K. Houghton, LLB, Solicitor

C. R. Jackson, LLB

S. G. Silvester, BA, MA

G. Stephenson, LLB, Solicitor

### *Lecturers II*

Mrs C. M. Douglas, LLB, Solicitor

Mrs H. Doupe, LLB, Solicitor

T. M. B. Fitzpatrick, LLB

Mrs A. E. M. Holmes, BA

J. R. Rimmer, BA, LLM

Miss H. A. Siddle, LLB, Solicitor

R. D. Taylor, BA, Barrister-at-Law

## SCHOOL OF MANAGEMENT STUDIES

### *Head of School:*

to be appointed

PR

### *Principal Lecturers*

PR

E. L. Bibby, MSc, CEng, MIMechE,

MIProdE, MIWM, AMBIM

PR

G. Evans, MSc, CEng, DMS, MIMechE,

AMBIM

PR

### *Senior Lecturers*

A. J. Duncalf, MSc, DipEE, CEng, MIEE,  
DMS, AMBIM

PR

P. A. Flynn, DipIM, MIWM, AMBIM,

MMS, DipIndSyst, CertEd

PR

M. D. Gibson, BSc, MSc

PR

S. P. L. Gregson, MA, AMBIM, MIDM

PR

N. R. Hall, BSc (Econ), MEd

PR

J. H. Hammonds, BSc (Econ), Labour

Studies Diploma

PR

G. J. Harkin, MA, MSc

PR

J. Hayes, BA, MSc, ACIS, AMBIM

PR

T. M. Horne, BSc, ANCRT, GPI

PR

W. E. Illston, BA, ACMA, MIWM,

MWSOM

PR

R. J. Kendle, BA (Econ), MA (Econ)

PR

P. C. Oastler, BSc, MSc

PR

T. O'Brien, BA, MIPM

PR

W. T. K. Poyner, BCom, ACISA

PR

A. S. Roberts, BSc, MSc, PhD

PR

T. W. Thornley, BSc (Econ)

PR

### *Lecturers II*

D. Counsell, MA

PR

A. Draper, BSc, MSc, MInstM

PR

M. P. Marchington, BSc, MSc

PR

# Faculty of Social Studies and Humanities

## Dean of Faculty:

Professor M. North, MSc(Econ), PhD PR

## SCHOOL OF SOCIAL STUDIES

### Head of School:

S. Henig, MA PR

## SOCIAL WORK

### Principal Lecturers

\*B. L. Gray, BA, MA, HOProbCert PR  
R. D. Everett, BA, DipASS PR  
J. S. Washington, BA, Cert, in PSW PR

### Senior Lecturers

R. H. Adams, BSc (Soc), DipASS PR  
Miss J. B. Barker, Cert. in PSW PR  
Mrs S. M. Kerrigan, BA, DipASS PR  
Miss J. Sayer, BA, PGDip in Youth Work PR  
P. M. W. Voelcker, BSc (Soc), HOProbCert PR

### Lecturers II

Mrs R. I. Illsley, BA, CQSW, DipASS PR  
T. M. Lang, BA, PhD PR  
P. J. Nolan, BSc (Soc), DipASS PR  
T. H. Ridgway, BA PR

## COMMUNITY HEALTH STUDIES

### Principal Lecturers

\*Miss M. M. Poyser, BEd, SRN, SCM, PR  
HVCert, HVTC

### Senior Lecturers

Mrs P. Kilgallen, SRN, SCM, DipN, PR  
HVCert, HVTC  
Miss G. M. Kneer, SRN, HVCert, HVTC PR

### Lecturer II

Mrs K. Fowler, SRN, HVCert, HVTC PR

## POLITICAL SCIENCE

### Principal Lecturer

\*A. H. Thomas, BSc, PhD, AIB PR

### Senior Lecturers

K. N. Briemann, BA, BSc, MA PO  
D. Jones, BSc (Econ) PR  
K. M. Phillips, BA PR  
M. R. Wilson, BA, MA PR

### Lecturers II

J. R. Barlow, BA, MSc (Econ) PR  
Mrs M. J. Jones, BA, MA PR  
A. Loizou, BA PR

## SOCIAL ADMINISTRATION

### Principal Lecturers

\*B. Scammells, BA PR  
R. Quinn, BA, DipEcon & Pol. PR

### Senior Lecturers

D. Hargreaves, BA, MA PR  
A. Pratt, BA (Econ), MSc PR

### Lecturers II

C. T. Jones, BA, PhD PR  
K. P. Kearns, BA PR

## SOCIOLOGY

### *Principal Lecturer*

\*Mrs V. Gray, BA, BA (Soc Stud) PR

### *Senior Lecturers*

Miss M. A. Coulson, BA PR

C. Fazey, BSc (Soc), PhD (Mrs) PR

R. Gordon, BSc (Econ) PR

R. S. Kelly, BSc (Soc) PR

J. Webb, BSc (Soc) C

### *Lecturers II*

J. Gabriel, BSc, MSc, DIC PR

Mrs H. M. Wood, BA, MA PR

## SCHOOL OF LANGUAGE AND HUMANITIES

### *Head of School:*

H. E. Probyn, BA(French),  
BA(Spanish), MPhil PR

## HISTORY

### *Principal Lecturer*

\*T. C. Curtis, BA, MA, PhD

### *Senior Lecturers*

Mrs A. E. Brownlow, MLitt PO

R. Pope, BA, MLitt, CertEd PR

J. B. Watson, BA, MA, Teacher's Diploma PO

J. G. Timmins, BA(Econ), MA, DipEd PR

### *Lecturers II*

M. C. Abramson, BA, MA PO

Mrs C. E. King, BA, MA PO

G. Rogers, BA, PGCE PO

## GEOGRAPHY

### *Principal Lecturer*

\*H. L. Phillips, BA, MA, DipEd PO

### *Senior Lecturers*

B. R. Bristow, BA, DipEd PO

M. Pearson, BA, MPhil, DipEd PO

R. A. Webster, BA, PhD PO

### *Lecturer II*

D. Longworth, BEd PO

## FOREIGN LANGUAGE AND LITERATURE

### *Principal Lecturer*

\*D. Swift, BA PR

### *Senior Lecturers*

E. Barker, BA C

R. A. Davies, BA, MA, DipEd PO

S. J. C. Brown, BA PR

P. M. Edwards, BA, MA, DipEd PO

A. O. Godfrey, BA, MLitt, PGCE PO

W. J. N. Hackl, FIL PR

T. K. Jenkinson, MA (Cantab), MA (Essex) PR

P. B. Preston, BA, DipEd PO

A. G. Weymouth, BA PR

### *Lecturers II*

Mrs D. M. Gibson, AIL PR

R. J. Towell, MA, Dip. in Gen. Linguistics C

**ENGLISH LANGUAGE AND LITERATURE**

**Principal Lecturer**

\*D. Lamont, MA, PhD

**Senior Lecturers**

G. Campbell, MA  
 M. J. Hayes, BA, MA, ADB,  
 Teacher's Cert.  
 G. S. D. Hyland, MA, MEd, PGCE  
 J. Hudson, Teacher's Cert.  
 Mrs C. A. Middleton, BA (English),  
 BA (Russian)  
 E. Newell, Dip. Journalism  
 A. C. Roylance

**Lecturers II**

Mrs B. Caunce, CertEd  
 Ms J. Darcy, BA, BPhil  
 Miss L. Donaghie, BA, MA  
 B. J. Rosebury, BA, MA  
 Mrs S. Woof

**SCHOOL OF PSYCHOLOGY**

**Head of School:**

P. M. Young, BA, MSc

PR

PO **Principal Lecturers**

M. A. Stone, BSc  
 A. Krejcova, PhD (Mrs)

PR  
 PR

C

**Senior Lecturers**

PO  
 PO F. Clough, BA, PhD  
 PO J. E. Archer, BSc, PhD  
 PR M. L. McCullough, BSc, PhD  
 PO M. F. McCarthy, MA, PhD  
 PR C. D. Smith, MA, PhD  
 PR A. G. Yeo, BSc

PR  
 PR  
 PR  
 PR  
 PR  
 PR

**Lecturers II**

PR  
 PO D. F. Shaw, BSc  
 PR P. S. Walker, BSc, PhD  
 PO  
 PR

PR  
 PR

# School of Education

<b>Dean of School:</b>			
A. B. Butterworth, MEd, AcadDipEd, CertEd, NFF, ADB			
<b>Senior Tutor</b>			
J. Booth, JP, BA, MA(Ed), BEd			
<b>ENGLISH LANGUAGE AND LITERATURE</b>			
<b>Principal Lecturer</b>			
D. A. Feasey, MA, ADB, DipYLO	C		
<b>Senior Lecturer</b>			
A. M. Gill, BA, MA, DipEd	PO		
<b>GEOGRAPHICAL STUDIES</b>			
<b>Senior Lecturer</b>			
Mrs M. A. Atkin, BA	C		
<b>PERFORMING ARTS</b>			
<b>Principal Lecturer</b>			
*D. T. Brooks, BA, LRAM, ARCM, LTCL (CMT), CertEd	PO		
<b>Senior Lecturers</b>			
D. G. Anderson, LRAM	C		
G. Bentham, DipPE	C		
Miss E. Bond, CertEd	C		
Miss J. Burke, MusB, ARCM	C		
R. N. Evans, MusB, FRCO, LRAM	C		
Miss D. Smith, LRAM, ARCM, GRSM	PO		
<b>SPECIAL EDUCATION</b>			
<b>Principal Lecturer</b>			
*A. Hardman, JP, DipEd, DipESN, MEd	PR		
<b>Senior Lecturers</b>			
A. D. Feachnie, DipEd, DipESN, BEd	C		
Mrs M. J. Finch, MEd, Cert. Teacher's of the Deaf, DipAudiology	C		
R. G. Hornby, DipTeachers of ESN, DipEd	C		
A. J. McHale, CertEd, BEd	C		
<b>PSYCHOLOGY OF EDUCATION</b>			
<b>Senior Lecturer</b>			
D. Blything, BA, MA, DipEd Psychol	C		
<b>CURRICULUM THEORY</b>			
<b>Principal Lecturer</b>			
Mrs J. A. Jackson, MEd, ALCM, Adv. DipEd	C		
<b>Senior Lecturer</b>			
H. Mess, BSc, Dip. Rural Ed, DipEd	C		
<b>SOCIOLOGY OF EDUCATION</b>			
<b>Principal Lecturer</b>			
J. R. Fairless, BA, MA (Ed), DipEd	C		
<b>Senior Lecturer</b>			
Mrs A. Connaughton, BA Teacher's Cert. DASE	PO		
<b>EDUCATIONAL SYSTEMS</b>			
<b>Principal Lecturers</b>			
H. Adair, BA, MA, Adv. DipEd	C		
A. G. Goddard, BA, MA, PGCE	PO		
<b>Senior Lecturer</b>			
J. Fishman, BSc (Econ)	C		

## PHILOSOPHY OF EDUCATION

### *Principal Lecturer*

\*\*J. A. Jackson, MSc, MA, DipEd

C

### *Senior Lecturers*

M. J. Bennett, BA, MA, DipPhilEd

C

D. Mollett, BA, MA, PhD

PO

K. Smith, BA, MEd, PGCE

PO

## APPLIED CURRICULUM STUDIES

### *Principal Lecturer*

R. Wilson, BSc, FGS

C

### *Senior Lecturers*

L. Chapman, CertEd

C

K. N. B. Cordell, BSc, MIBiol, Cert in  
Microbiology

C

## ORGANISATION AND MANAGEMENT FOR LEARNING

\*\*Mrs B. Wilkinson, MEd, Teacher's  
Cert, NFF

PO

Mrs M. Carnishaw, BA, ADB,  
LGSM

C

R. G. Williams, CertEd NFF, OMS

C

## NEW SCHOOL OF EDUCATION (IN-SERVICE)

### Head of School:

T. D. Cook, BA, MLitt, FCP C

### Principal Lecturers

J. Bridgen, MA, PGCE C  
 B. J. Leatherbarrow, BSc, MEd, DipEd C  
 J. S. Little, MSc C  
 D. W. McGregor, BSc C  
 G. B. Stead, BSc, MSc, PGCE, MIBiol C  
 A. Torkington, BSc, MA(Ed), DASE C

### Senior Lecturers

K. Burrell, BSc, MSc PO  
 Mrs B. D. Clough, MA(Ed), NFF, DASE C  
 I. B. Crellin, BA, MA, PGCE PO  
 A. Cubbin, ADB, DASE C  
 Mrs P. Cubbin, ADB, LU Dip. in Drama,  
 RADA Dip. C  
 I. H. Davies, BA, MA, DipEd, DASE PO  
 G. D. Ellison, BSc(Econ), MEd, Teacher's  
 Cert, Adv.DipEd C  
 K. M. Foster, BA, MEd PO  
 J. L. Haworth, BA(Econ), MSc C  
 H. A. Hurst, BA, MEd, PGCE PO  
 R. Jackson, BA, Teacher's Cert. C  
 B. Jacobs, MA, ALA C  
 J. R. Martin, BSc, AFIMA, DASE C  
 M. W. Middleton, BA(Soc. Stud), DipEd C  
 J. Mitchell, Dip.Adv. Stud. of Ed., Froebel  
 Cert C  
 K. R. Pledger, Adv.Dip. in Primary  
 Education, BPhil(Ed) C  
 D. W. Rogers, CertEd, DASE C  
 R. Tanner, MA, MSc PO  
 Ms M. Taylor, BA, MSc, MEd,  
 DipPsychol. of Ed C  
 T. Titherington, NDD, ATD, DASE C  
 C. R. Townley, BA, DipEd, DipSS C

### Lecturers II

B. Heap, BA, MSc, PGCE PO  
 Mrs J. A. Hudson, BEd, MEd C  
 G. A. Martin, BEd, CertEd, MCCed C

## RESEARCH ASSISTANTS

P. R. Wearden, GradRIC, PhD PR  
 P. C. Johnson, GradInstP PR  
 P. Jones, GradRIC PR  
 A. C. Hall, GradRIC PR  
 K. Anandasivam, BSc, MSc PR  
 Miss L. Hayes, BA PR

# Library and Learning Resources Service

**Librarian:** J. R. Edgar, MA, FLA  
**Deputy Librarian:** M. P. Day, BSc, MSc, ALA

## **Sub-Librarians:**

Technical Services: A. Lawrence, ALA  
Services: K. R. Ellard, BA, DMS, ALA

## **Campus Librarians:**

Chorley: Miss J. B. Smith, BA, ALA  
Poulton: Miss A. Bradley, BA, ALA  
Preston: K. R. Ellard, BA, DMS, ALA

Media Services Librarian: J. A. Lamb, BA, ALA  
Chief Cataloguer: Mrs G. F. Hendrix, BA, ALA

## **Subject Librarians:**

Art: P. K. R. Pacey, BA, ALA  
Business Studies & Law: P. C. Clinch, BA, MPhil, MA, MInfSc  
Education, Chorley: Miss J. B. Smith, BA, ALA  
Education, Poulton: C. Hooper, BA, ALA  
Humanities: Miss A. Bradley, BA, ALA  
Sciences: M. Peel, MA, ALA, AllnfSc  
Social Sciences and Management: A. C. Turner-Bishop, BA, DipLib, ALA  
Technology: Mrs E. Gabb, BSc, ALA

## **Senior Assistant Librarians:**

Mrs E. Boaler, ALA  
J. W. de Nobriga, ALA  
S. J. Newbold, BA, ALA  
Mrs C. Laidlaw, BA, ALA  
Mrs H. Higgins, BA, ALA

## **Assistant Librarians:**

Miss J. Boxall, BSc, DipLib  
R. Campbell, BA, ALA  
C. S. Hall, BA, DipLib, ALA  
M. Harrison, ALA  
Miss C. Hosker  
Miss C. Ironfield, BA, MA, PGCE,  
P. O'Donohoe, BSc, DipLib  
I. Sheridan, BA, DipLib, ALA  
Mrs K. Vanston, CertEd, DipLib  
Miss M. Monaghan, MA, DipLib

# Computer Unit

## **Head of Service**

D. W. Walsh, BSc, MSc, MBCS

## **Computer Manager**

D. M. Speight, MBCS, AMBIM

# Centre for Educational Technology

## **Head**

\*D. H. Ormerod, MEd, Dip. in Ed. Guidance C

## **Senior Lecturers**

to be appointed

## **Lecturer II**

to be appointed

## **Chorley Campus**

Senior Administrative Officer: L. Sweeney, C223  
Administrative Assistant: M. A. T. Hoyle

## **Poulton Campus**

Senior Administrative Officer: L. Sweeney, C223  
Administrative Assistant: D. Nightingale

# Student Welfare Services

<b>Head:</b>	Miss F. Higgins, BA, MA, DASE, EdG, Dip, VG	
<b>Accommodation Service:</b>	Mrs P. Cross	PR/C
	Mrs P. Ryan	PR/C
	Mrs B. Stephenson	PO/LA
<b>Chaplaincy Service:</b>	Rev. J. Hawkins	PR
	Rev. M. Wearing, MA, BD	PR
<b>Counselling Service:</b>	(Head) J. B. Thomas, BA, Teacher's Cert, DASE	PR/LA/C
	Mrs A. Connaughton, BA, Teachers' Cert, DASE	PO
	D. K. Monk, BSc, MA	PR/PO
<b>Health Service:</b>	Dr. N. F. Leigh, BA, MD, BChir, MRCGP	PR
	Dr. S. G. Siddle, MD, BS, MRCGP	PO
	Mrs M. B. Newton – Matron	PO
	Mrs M. Schofield – Assistant Matron	PO
<b>Administration:</b>	Mrs L. Hornby – Secretary/Receptionist	PR

# Administration

**Chief Administrative Officer:** T. G. Goodwin, MA (Cantab), MA (Lancaster), PGCE

## Secretariat and General Services

**Deputy Chief Administrative Officer:** J. Barnacle, DMA, ACIS

**Personnel Officer:** J. Thomason, MMS

**Assistant Personnel Officer:** D. J. Powell

**Administrative Assistant:** Mrs P. A. Sutton

## Registry

**Academic Registrar:** D. N. Sharrocks, BSc, PhD, CChem, MRIC

**Assistant Academic Registrar:** D. R. Cullingworth, MA, PGCE

**Senior Administrative Assistants:** Mrs R. McNamara

Mrs R. M. Steadman, BA

**Administrative Assistants:** G. Ball

Mrs C. Irwin, BA

Mrs V. O'Hanlon

**Educational Liaison Officer:** G. A. Redhead, BSc, DipEd

**Information Officer:** I. H. Foster, BA

## Finance

**Finance Officer:** N. W. Tennant, IPFA

**Deputy Finance Officer:** R. Sharples, ACIS

**Senior Administrative Assistant:** E. W. Park

**Administrative Assistant:** Miss P. Dickinson

## Chorley Campus

**Senior Administrative Officer:** T. Connor

**Administrative Assistant (finance):** Miss M. Y. Hough

## Poulton Campus

**Senior Administrative Officer:** L. Brownlow, CertEd

**Assistant Administrative Officer:** D. Nightingale

## Physical Education Section

### **Head of Section**

J. Montgomery, BEd, DipPE, DipSpEd PR

### **Senior Lecturers**

Miss E. Astin, MA, Teacher's Cert. PO

C. T. Evans, DLC, Teacher's Cert. PR

Mrs H. P. Lang, DipPE, MCSP C

### **Lecturers II**

J. Gridley PR

Mrs D. L. B. Lane, MA (Ed), DipPE, PR

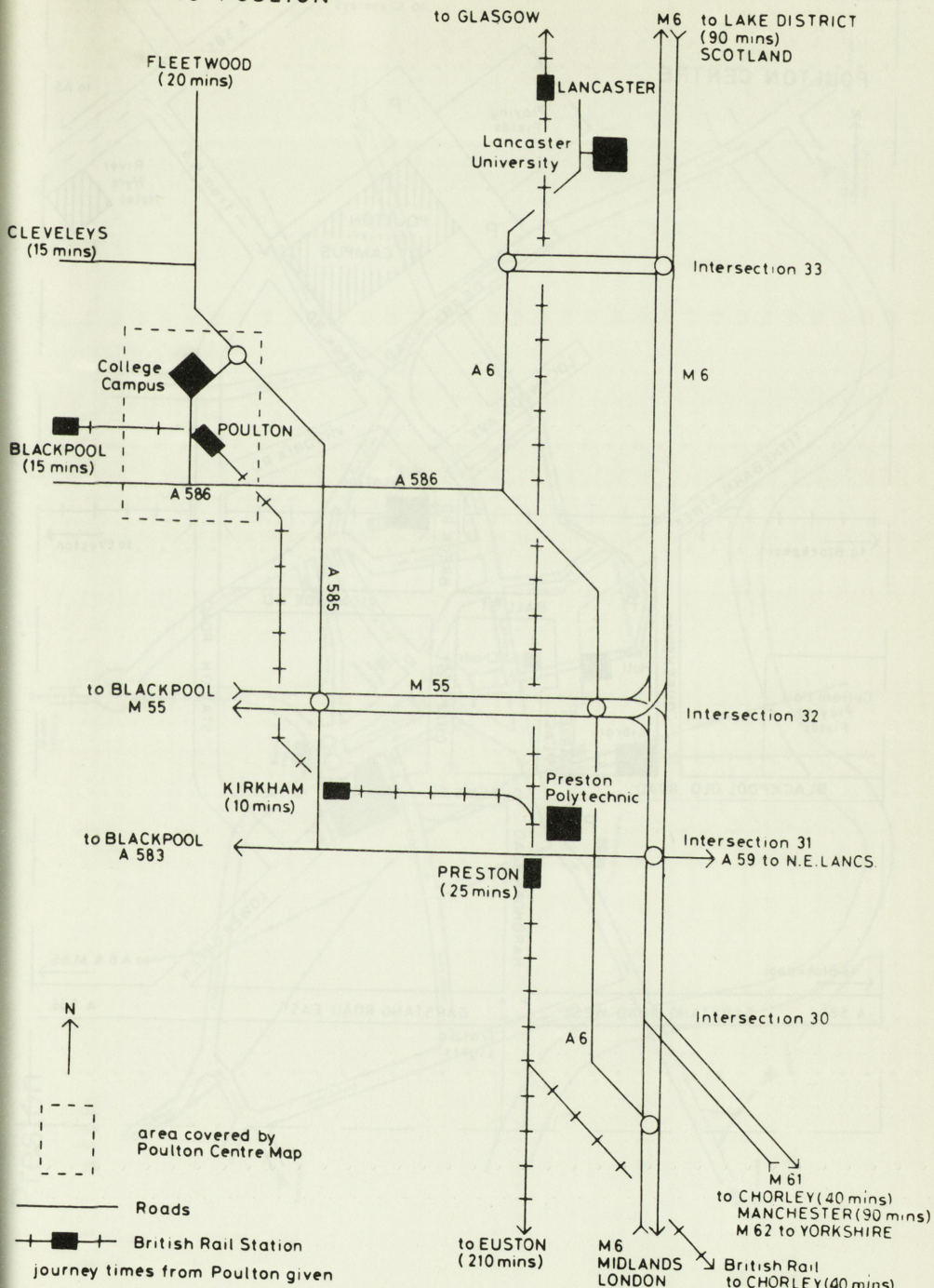
Dip Adv Study of Ed PR

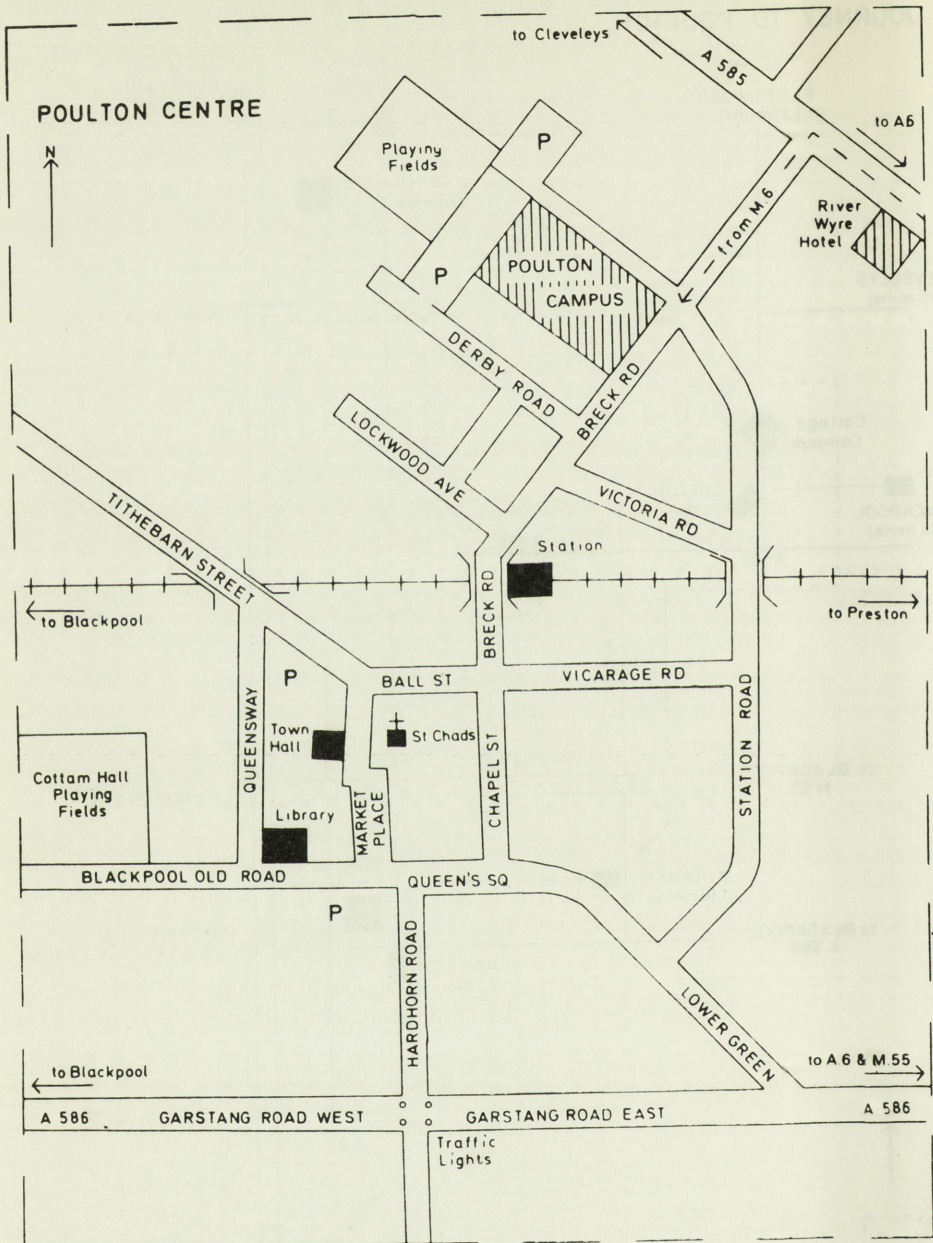
## General Studies Unit

### **Lecturer II**

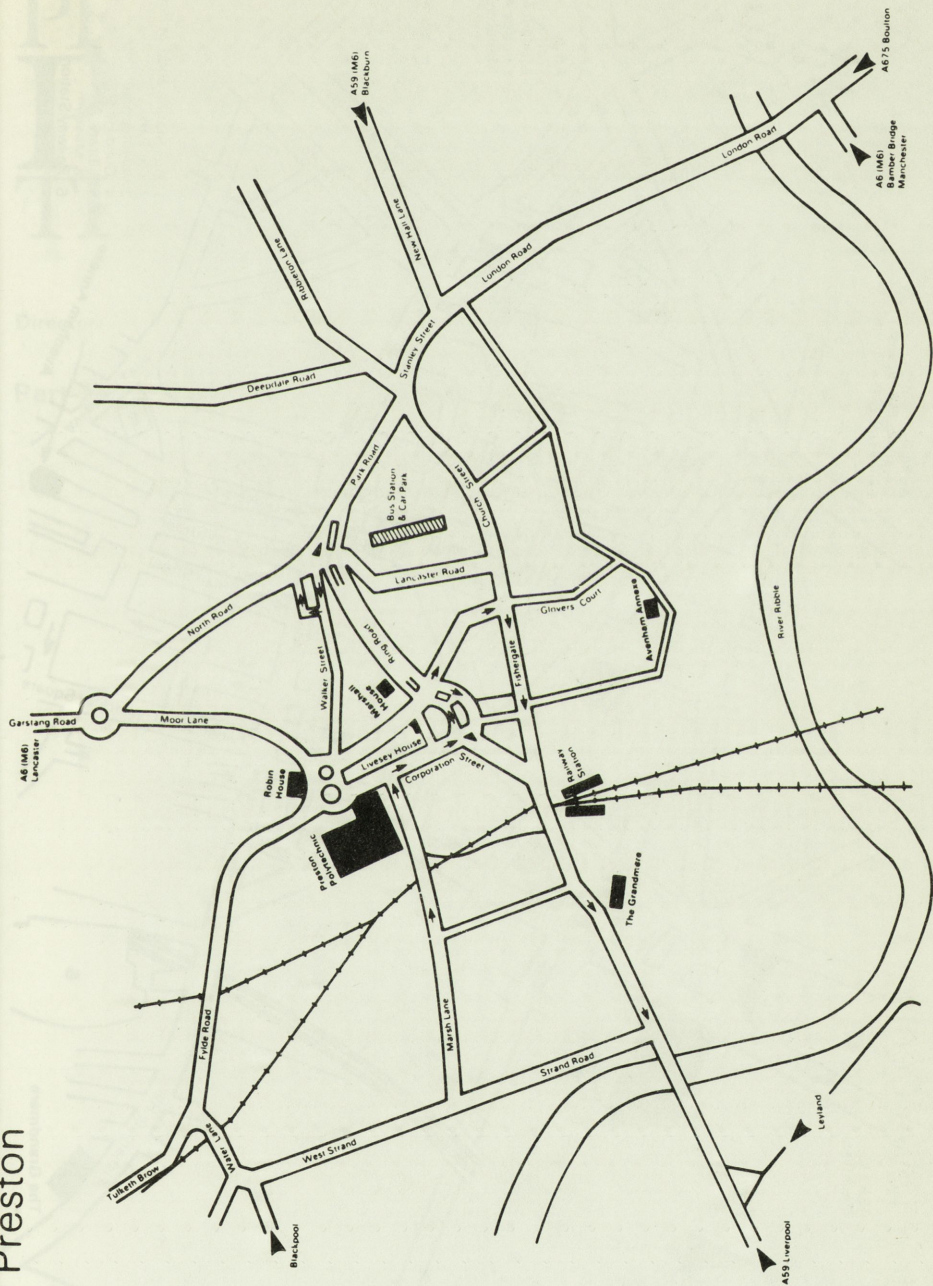
Mrs A. M. Hallam, BA PR

# JOURNEY TO POULTON



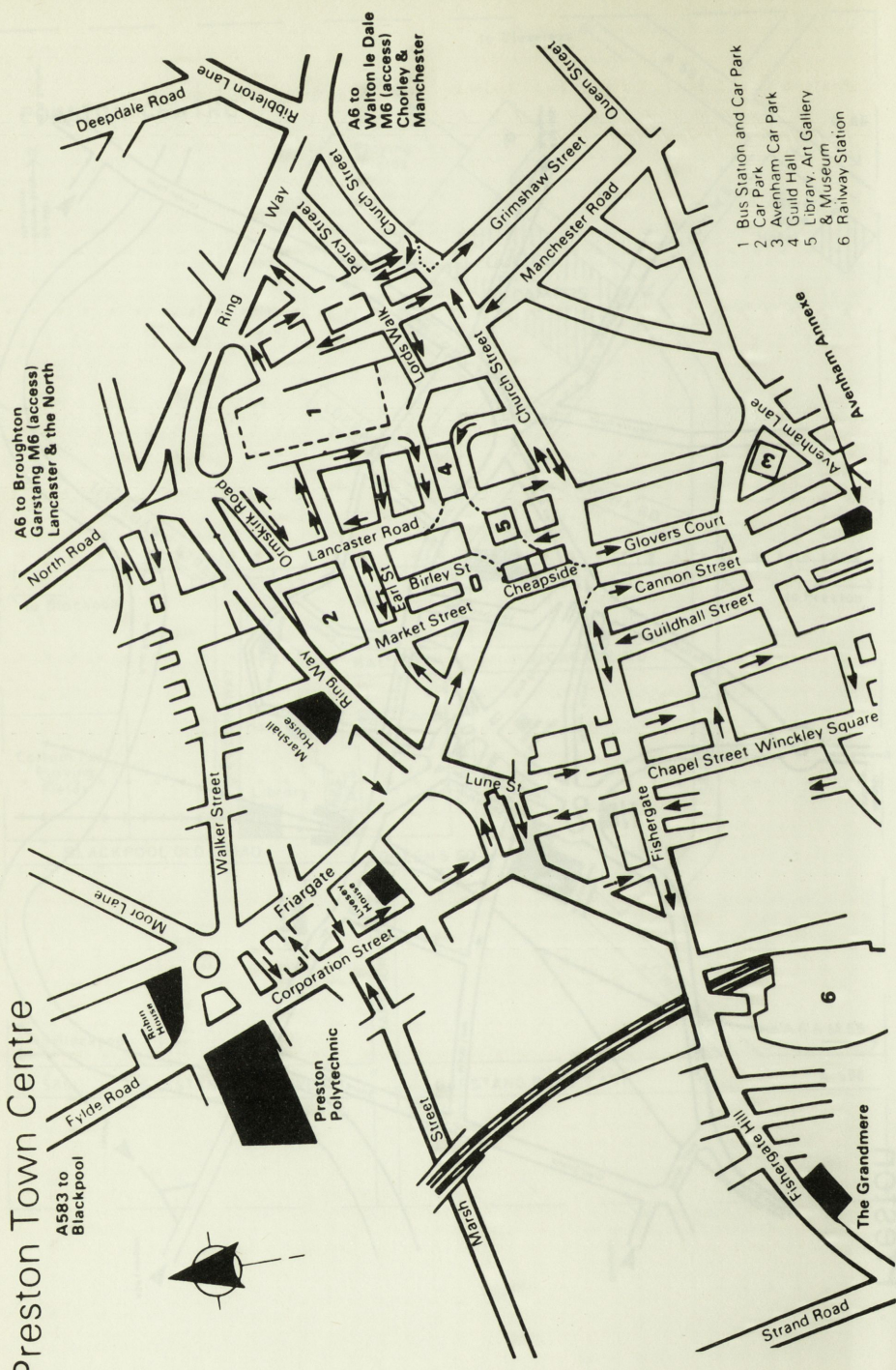


# Preston



# Preston Town Centre

A583 to  
Blackpool



- 1 Bus Station and Car Park
- 2 Car Park
- 3 Avenham Car Park
- 4 Guild Hall
- 5 Library, Art Gallery & Museum
- 6 Railway Station

# PRESTON POLY TECHNIC

Director: HD Law BA , PhD, CChem, FRIC

Part-Time Courses 1980-81

# PRESTON POLY TECHNIC

Director: Mr. J. W. ...  
Part-time Courses: ...

Although every care has been taken to ensure that the information contained in this Prospectus is accurate at the time of printing it must be understood that changed circumstances may necessitate cancellation of courses or alterations in the programme of courses, course content, fees and other matters dealt with. The Polytechnic cannot undertake to give notice of such cancellations or alterations, and cannot accept any liability arising out of or in connection with them.

Subject

# PRESTON POLY TECHNIC

Corporation Street, Preston PR1 2TQ Tel: 0772-51831

Deputy Directors S Skidmore BSc, PhD, FRIC and GT Fowler MA  
Assistant Director RH Eaton BA, BSc(Soc), MA, DipEd  
Chief Administrative Officer TG Goodwin MA(Cantab), MA(Lancaster), PGCE

Building

Business

CE

Cartography

Certified

Chartered

Chartered

Chartered

Chiropractic

Chemistry

Civil Engineering

Company

Computer

Construction

Cost and

Data Processing

Design

Economics

Education

Electrical

Engineering

English

Estate Valuation

French

Garden

Health

Highway

Industrial

Industrial

Industrial

Insurance

Italian

Jewellery

Journal

Language

Law

## Contents

Subject index	5	Permission Vouchers	88
Preston Polytechnic Report	7	Examinations	90
Governance of the Polytechnic	8	General Information	91
Faculty of Art and Design	9	Students' Union	91
Faculty of Business and Management	12	Full-time and Sandwich Courses	93
Faculty of Science and Technology	30		
Faculty of Social Studies and Humanities	70		
School of Education	75		
Library and Learning Resources Service	77		
Computing Services Unit	78		
Student Welfare Services	79		
Schools Advisory Service	80		
Service to Employers and Employees	80		
Physical Recreation Section	81		
Calendar	82		
Regulations	83		
Course Requirements	85		
Application Procedure	85		
Tuition Fees	86		
Enrolment	88		

## Subject Index

Accountancy	13	Legal Executives	22
Analytical Chemistry	31	Management Services	27
Applied Physics	39	Management Studies	23
Architecture (Technician)	50	Marketing	17
Banking	19	Mathematics	42
Biology	34	Mechanical Engineering	66
Building	48	Medical Laboratory	35
Building Societies	19	Mental Handicap	79
Business Studies	17	Methods-Time Measurement	27
Cartography	52	Microprocessors	47, 62
Certified Accountancy	15	Modelling and Sculpture	10
Chartered Accountancy	14	Music	73
Chartered Engineers	57	Nursing	36
Chartered Insurance	20	Office Administration/Management	24
Chartered Secretaries and Administrators	16	Office Supervision	24
Chemistry	31	Painting and Drawing	10
Civil Engineering	53	Personnel Management	28
Company Secretaryship	16	Photography	10
Computer Studies	44	Physics	37
Construction	48	Physical Recreation	81
Cost and Management Accountancy	15	Physiology	36
Data Processing	46	Planning	52
Design (Engineering)	63	Politics	21
Economics	17	Polymaths	45
Education	75	Polyphysics	41
Electrical and Electronic Engineering	57	Pottery	10
Engineering	57	Printmaking	10
English	73	Production Control	25
Estate Management	56	Production Engineering	63
French	73	Public Administration	18
German	73	Public Finance and Accountancy	13
Health Visitors	71	Quantity Surveying	51
Highway Engineering	53	Radio, Television and Electronics	61
Industrial Design	63	Rating and Valuation	16
Industrial Relations	26	Russian	73
Industrial Management	25	Science	31
Insurance	20	Sculpture	10
Italian	73	Silversmithing	10
Jewellery	10	Site Management	55
Journalism	72	Spanish	73
Languages	73	Statistics	42
Law	21	Structural Engineering	53

Supervisory Studies	24	Teaching	75
Surveying	51	Town Planning	56
Technician Education	68	Work Study	27

Polytechnics represent a new concept in higher education. They are comprehensive in the sense that they offer a wide range of types of courses involving a variety of attendance patterns. Thus, there are degree and post-graduate courses, certificate and diploma courses, and courses leading to professional qualifications. Students attend on a full-time, sandwich, block release, part-time day or part-time evening basis. The majority of the courses have a strong vocational orientation and there is a particularly close relationship between the Polytechnics on the one hand and industry, commerce and the professions on the other. The ambience of the Polytechnics is therefore unique, providing excellent opportunities for interaction between students with differing backgrounds and subject interests.

The academic programme of Preston Polytechnic has expanded almost explosively over the last few years creating an enormously increased range of opportunities for students. These possibilities are summarised in the following pages.

Academic developments have been matched by an ambitious building programme on the Preston campus. In addition to the buildings of the former Harris College, the Polytechnic now has a new Students' Union building and Student Residences and a new three-storey Library building. The construction of the Art and Design building and additional Student Residences is under way. Further accommodation has been leased in two office blocks which were finished to the Polytechnic's own specification. These are situated close to the main campus. Altogether, the main Preston campus of the Polytechnic, which occupies some forty acres centering on the Polytechnic Arts Centre, has outstanding development potential.

Some Art and Design courses are located in the graceful nineteenth century Avenham building which is some fifteen minutes walk from the main campus; whilst outside Preston, the premises of the former Colleges of Education at Chorley and Poulton and those of the former College of Art in Lancaster provide valuable bases for certain other courses.

## Governance of the Polytechnic

The legal responsibilities of the several agencies involved in the establishment, governance and operation of the Polytechnic are detailed in the *Instrument of Government* and the *Articles of Government* approved by the Secretary of State for Education and Science. Copies of these documents are deposited in the Polytechnic Library and may be seen on request.

The provision of the Polytechnic is the responsibility of the Lancashire Education Authority.

The governing body of the Polytechnic is the *Polytechnic Council* which has responsibility for 'the general direction of the Polytechnic'. It is composed of members appointed by the Local Education Authority; the University of Lancaster, the Manchester and Liverpool Polytechnics and teachers' unions; co-opted members from industry, commerce and the professions; and Polytechnic staff and students.

Subject to the overall responsibilities of the Polytechnic Council the *Director* is responsible for 'the internal organisation, management and discipline for the Polytechnic', and the *Academic Board*, under the Chairmanship of the *Director*, for 'the planning, co-ordination, development and oversight of the academic work of the Polytechnic'. The Board is composed of senior academic and administrative officers, members appointed by and from the full-time teaching staff and non-teaching staff, the Students' Union, and co-opted members.

The Polytechnic has recently adopted an academic structure based on four Faculties:

Art and Design,  
Business and Management,  
Science and Technology,  
Social Studies and Humanities.

Each Faculty contains a number of Schools, the departmental unit in the structure, and some of the Schools are further sub-divided to form Divisions.

## Faculty of Art and Design

An introductory  
of various subjects

Other subjects

Exhibition  
the polytechnic  
held at

Dean of Faculty T Metcalfe ARCA, ASIA

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.

The Faculty offers BA (Honours) courses in Fashion, Fine Art and Graphic Design, a Foundation Course for students who are not less than 17 years of age on entry, and a Specialist Designers' Course in Ceramics. The courses in Design (Fashion, Graphics and Ceramics) enable students to develop personal creative talents and a good understanding of industrial and commercial processes, the latter being in part dependent upon the close and fruitful relations with industry that members of the design staff have established over a number of years. The course in Fine Art provides opportunity for fundamental studies cutting across the boundaries of the specialist design areas, thereby providing a basis for the practice of art, for teaching in schools of general education, and for subsequent specialisation in a wide range of activities to which a broad competence in, and understanding of, the visual arts are appropriate. 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.

There are good facilities for small-scale production using industrial techniques in a number of fields (eg 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.

A new building for the Faculty of Art and Design on the Preston campus is expected to be ready for occupation in September 1981, but for the time being the courses in Fine Art and Ceramics are housed in the Storey Institute, Lancaster, other courses being housed on the main campus and at The Avenham Annexe in Preston. Facilities for travel between the two towns are maintained by the Polytechnic.

The Faculty also offers a wide range of adult non-vocational courses in art and crafts which are at present housed mainly in the Avenham Annexe of the Preston campus.

In these days of increasing mechanisation and technological development, a growing number of people are feeling the need for a personal creative pursuit. It is for this reason that studios are open at certain times mainly in the Avenham annexe of the Polytechnic for those who wish to participate in the practice and theory of the visual arts and crafts. These facilities are intended for those seeking creative leisure and for the more experienced artist or craftsman who wishes to work in congenial surroundings. Advice and tuition will be given to those who require it by practising artists and craftsmen.

There is no charge for registered full-time students of the Polytechnic or for registered unemployed persons and their dependents. A reduced fee applies for those in receipt of a state retirement pension.

### **Painting and Drawing**

Classes for beginners and the more experienced. 'Open studio' for practising artists. Models available for portrait and life. Lectures and discussions on the techniques of painting and developments in art up to the present day. Classes: four days and three evenings per week.

### **Modelling and Sculpture**

Modelling in clay and plaster. Plaster casting. Facilities for: metal work; glass fibre processes; wood carving. Classes: one half day and one evening per week.

### **Jewellery and Silversmithing**

Basic techniques in fine jewellery work, silversmithing and enamelling. More advanced work: stone setting, forging, brazing and hand raising. Classes: three evenings per week.

### **Printmaking**

Etching, lithography, relief printing (wood and lino cuts); silk screen printing; incorporation of photographic images. Practising artists and teachers especially invited to widen their range of media. Classes: one evening per week.

### **Pottery**

Courses in basic techniques for beginners. Facilities and tuition for more experienced potters. Throwing techniques; ceramic sculpture; oxidised and reduced stoneware firings. Classes: one day and three evenings per week.

## Photography

An introduction and basic exploration of studio photography and darkroom procedures for students of varied experience. Classes: one half day and one evening per week.

## Other activities

Exhibition facilities and visits to exhibitions in London and elsewhere at reduced rates. Full use of the polytechnic facilities (library, etc.). Lectures and films on art. An annual exhibition of work is held at the Polytechnic Arts Centre.

## Faculty of Business and Management

Dean of Faculty **BG Booth BA(Econ), MTech, FSS**

The Faculty offers a wide range of full-time, sandwich, block release, part-time and short courses, leading to qualifications in business studies, management, public administration, the professions and to degrees in Accounting, Business Studies and Law, validated by the CNAAB. Students are drawn from a wide area and attractive career opportunities are available on successful completion of the courses.

The courses are the responsibility of the four Schools within the Faculty:

School of Accounting and Finance  
School of Economics and Business Studies  
School of Law  
School of Management Studies

The part-time, block release and short courses are designed to meet the needs of those people normally in employment seeking professional qualifications, gaining expertise in their chosen career or considering new career possibilities.

The Faculty provides courses of study at all levels of higher education which seek to maximise students' capabilities; entry requirements range from one 'A' level or ONC/OND to degree or equivalent for postgraduate studies. Part-time degrees in Business Studies and Law are offered during the evenings so that it is possible to obtain a degree without interruption to present employment.

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.

Additional information on any of these courses can be obtained from the Faculty Officer or the Course Leader.

The Faculty offices together with the School of Accounting and Finance and the School of Economics and Business Studies are located in Marshall House (Tel. 23111), the School of Law in Robin House (Tel. 21513), and the School of Management Studies in Livesey House (Tel. 59477).

## School of Accounting and Finance

Head of School RW Wallis BCom, IPFA

### Block Release Courses

#### **Chartered Institute of Public Finance and Accountancy**

Course Leader GK Woodhall

##### **Professional Examination 1 (II)**

Course Tutor FW Shakespeare

December, 1980 Examination Course

There will be a three week block release period for students who have already attended the nine week block release period in the 1979/80 session.

December, 1981 Examination Course

This course for the December, 1981 Professional Examination 1 will consist of twelve weeks block release divided into three periods:

- (a) Five weeks in the Spring Term 1980.
- (b) Four weeks in the Summer Term 1980.
- (c) Three weeks in the Autumn Term of the 1981/82 session.

##### **Professional Examination 2 (II)**

Course Tutor GK Woodhall

December, 1980 Examination Course

There will be a three week block-release period for students who have already attended the nine week block-release period in the 1979/80 session.

December, 1981 Examination Course

This course for the December, 1981 Professional Examination 2 will consist of twelve weeks block release divided into three periods:

- (a) Five weeks in the Spring Term 1980.
- (b) Four weeks in the Summer Term 1980.
- (c) Three weeks in the Autumn Term of the 1981/82 session.

##### **Professional Examination 3 (II)**

Course Tutor B Strudwick

December, 1980 Examination Course

There will be a four week block release period for students who have already attended the eight week block release period in the 1979/80 session.

#### December, 1981 Examination Course

This course for the December, 1981 Professional Examination 3 will consist of twelve weeks block release divided into three periods:

- (a) Four weeks in the Spring Term 1980.
- (b) Four weeks in the Summer Term 1980.
- (c) Four weeks in the Autumn Term of the 1981/82 session.

Note: Syllabuses and regulations for admission to the Institute can be obtained from the Secretary, The Chartered Institute of Public Finance and Accountancy, 1 Buckingham Place, Westminster, London SW1E 6HS.

#### **Accounting Technician Examination Stage 2 (III)**

Course Tutor **M Edwards**

A day and evening course will be provided for the June 1981 Stage 2 Examination.

#### **Institute of Chartered Accountants**

Course Leader **IR Dalzell**

#### **Professional Examination I and Professional II Courses (II)**

Course Tutors **CB Eaves** Professional Examination I  
**AWH Ward** Professional Examination II

Each course provides two years' comprehensive and wholly Polytechnic-based tuition.

Each includes a total of ten weeks' block release, with a block in each of the three terms preceding the May/July examinations, for which the courses are designed. The blocks are linked by monthly one-day attendances when reading is prescribed and work set and returned; similarly before the first block, except that attendances are then once per term only.

Syllabuses and regulations for admission to the examinations can be obtained from the Secretary, The Institute of Chartered Accountants in England and Wales, PO Box 433, Moorgate Place, London EC2P 2BJ.

#### **Continuing Professional Education for Accountants**

Course Tutor **MJ Connolly**

The School of Accounting and Finance will offer a programme of CPE which will be defined as local needs are identified. Enquiries to Course Tutor.

## Part Time Courses

### **Association of Certified Accountants: Foundation Examination Parts A and B (II) Professional Examination Sections 1, 2 and 3 (II) and Diploma in Accounting and Finance (III)**

Course Tutor JP Boylan

Part-time day and evening courses will be provided for the examinations of the Association during the 1980/81 session and will normally operate as follows:

Day:	
Foundation A and B	Wednesday
Professional 1 and 2	Thursday
Evening: (commencing at 6 pm)	
Foundation A	Monday and Wednesday
B	Monday and Wednesday
Professional 1	Monday and Wednesday
2	Wednesday and Thursday

Exemptions from subjects of the Foundation and Professional Examinations are granted to holders of certain qualifications and students who consider that they may be eligible should write to the Association.

The Certified Diploma is intended for professional people who are not accountants and yet need a working knowledge of Accounting and Finance in the conduct of their business affairs. The purpose of the Diploma is to provide a recognised ancillary qualification that will establish the holder's competence to apply his knowledge of the broad principles of business finance and accounting to practical situations encountered in the course of his daily work. The 1980-81 study period is one year of evening attendance (Tuesday and Thursday).

Syllabuses and regulations for admission can be obtained from the Secretary, The Association of Certified Accountants, 29 Lincolns Inn Fields, London WC2A 3EE.

### **Institute of Cost and Management Accountants: Foundation Examination Parts A and B and Professional Examinations 1, 2 and 3 (II)**

Course Tutor RP Wraith

Part-time day and evening courses will be provided for the examinations of the Institute during the 1980/81 session and will normally operate as follows:

Day:	
Foundation A and B	Wednesday
Professional 1, 2 and 3	Thursday
Evening: (commencing at 6 pm)	
Foundation A	Monday and Tuesday
B	Tuesday and Wednesday
Professional 1	Monday and Thursday
2	Tuesday and Wednesday
3	Tuesday and Thursday

Exemptions from subjects of the Foundation and Professional examinations are granted to holders

of certain qualifications and students who consider that they may be eligible should write to the Institute.

Syllabuses and regulations for admission can be obtained from the Secretary, Institute of Cost and Management Accountants, 63 Portland Place, London W1N 4AB

### **Institute of Chartered Secretaries and Administrators, Parts 1, 2, 3 and 4 (II)**

Course Tutor E Schofield

Part-time day and evening classes are arranged for each part of the examination. Candidates holding the Ordinary National Diploma and Certificate in Business Studies with passes in appropriate subjects at credit level may be granted exemption on a subject for subject basis from all four subjects of the Part I Examination.

The course can be taken in any one of two spheres – General and Financial, and the Public Services – according to the student's interests or type of employment. Details can be obtained at the time of enrolment.

Syllabuses and regulations for admission can be obtained from the Secretary, The Institute of Chartered Secretaries and Administrators, 16 Park Crescent, London, W1N 4AH.

### **Rating and Valuation Association, Rating Division**

Course Tutor FW Shakespeare

#### **Intermediate Examination (IV)**

Classes for Part I will be held normally on one day each week and for Part II on one afternoon and evening each week.

#### **Final Examination (III)**

Classes for Part I and II will be held on one afternoon and evening each week.

Syllabuses and regulations for admission to the examinations can be obtained from the Examination and Membership Registrar, The Rating and Valuation Association, 115 Ebury Street, Belgravia, London SW1W 9QT.

# School of Economics and Business Studies

Head of School Professor F Livesey BA(Econ.)

## Part Time Courses

### **BA and BA with Honours in Business Studies of the Council for National Academic Awards (II)**

Course Leader SM Haddock

A part-time course enabling students to obtain either a BA or a BA (Hons) in Business Studies. The course is designed to appeal to mature students, normally over 20 years of age, and should be of interest to a wide range of people including:

- (a) Non-graduate teachers of business and commercial subjects in schools and colleges.
- (b) Men and women already employed in industry, seeking to enhance their qualifications.
- (c) Persons employed in the public sector.

#### *Qualifications for entry:*

- (a) five GCE passes including at least two at Advanced level, or
- (b) a good standard of pass in the ONC or OND in Business Studies or their BEC equivalents, or
- (c) an HNC or HND or their BEC or TEC equivalents, or
- (d) an acceptable professional qualification gained by examination.

Students will normally be expected to have at least an 'O' level (or its equivalent) in Mathematics and English Language.

Students without the above qualifications should consult the Course Leader for individual consideration.

*Exemptions:* Exemptions from the foundation level, and exceptionally from the Intermediate level, will be granted on a subject for subject basis to holders of appropriate qualifications, eg HNC or HND in Business Studies, professional qualifications, etc.

Prospective students are invited to discuss their qualifications and the attendance pattern with the Course Leader (Tel. Preston 23111).

*Curriculum:* Foundation level (normally taken over 2 years) – Accounting 1, Computer Studies, Economics 1, Law 1, Organisation Studies 1, Quantitative Business Analysis.

Intermediate level (normally taken over 1 year) – Accounting 2, Economics 2, Law 2, Organisation Studies 2.

Degree level (to be taken in 1 year) – Financial Information and Control, the Labour Market in Theory and Practice, Marketing Analysis.

Honours Degree level (to be taken in 1 year) – all students submit a Project and take one of the following pairs of subjects:

- i Financial Accounting and Society,  
Financial Management
- ii Employment Studies,  
The State of the Labour Market
- iii Buyer Behaviour,  
Marketing Research

*Examinations:* internally set, externally assessed.

## **BEC Higher National Certificate (III)**

Course Leader **JR Topping**

The Certificate is validated by the Business Education Council (BEC) and is awarded on successful completion of a two-year part-time course.

### *Qualifications for entry:*

- i students must be at least 18 years of age and have completed the English compulsory secondary school education or its equivalent
- ii satisfy the Polytechnic that their level of competence in the English language is sufficient to enable them to understand and progress satisfactorily on the course.

In addition, students must have obtained at least one of the following:

- (a) a BEC National award, or
- (b) an ONC or OND in Business Studies, or
- (c) an ONC in Public Administration, or
- (d) at least one GCE 'A' level together with 3 subjects at 'O' level (grades A, B or C) (or their equivalent) and have completed a BEC approved conversion programme of study, or
- (e) a qualification which BEC accepts as equivalent to the above.

Exceptionally, a student who has reached the age of 21 before the start of the course may be admitted without the minimum entry qualifications, subject to BEC approval.

The award of the Certificate will be based on performance in examinations and course work assignments under the BEC regulations.

BEC has four Boards (B1 – Business Studies, B2 – Financial Sector Studies, B3 – Distribution Studies, and B4 – Public Administration and Public Sector Studies) and the Polytechnic has made a submission to the Council involving Boards B1, B2 and B4.

The Polytechnic presently offers the following *curriculum* which is subject to revision and BEC validation.

### **1st Year**

(students take 4 modules) B1 and B2 – Business and its Environment 1, Organisation Studies, Financial Analysis 1, Quantitative Analysis 1.

B2 (Banking) – Business and its Environment 1, Organisation Studies, Financial Analysis 1, Law relating to Banking.

B4 – Business and its Environment 1, Organisation Studies, Policy Making and Administration, Local Government.

### **2nd Year**

(students take 4 modules) B1 – Business and its Environment 2, People and Organisations, together with 2 option modules from a specialists group: Personnel – Personnel Administration, Industrial Relations; Marketing – Marketing Analysis, Marketing Communications; Management Services – Management Services, Productivity Services; Purchasing – Purchasing, Marketing Analysis; General – Business Law 1, Data Processing.

B2 – Business and its Environment 2, People and Organisations, Financial Analysis 2, together with one option module from a specialist group:  
Accounting – Costing; Company Administration – Office Administration; Banking – Finance of International Trade.

B4 – Business and its Environment 2, People and Organisations, Social Policy and Administration, Public Service Administration.

The course will consist of lectures, seminars, tutorials, practical exercises and case studies. The attendance pattern should be discussed with the Course Leader.

*Examinations:* Held at the end of each year in the Polytechnic and are internally set and externally assessed.

*Exemptions:* Successful completion of the HNC will enable students to gain exemptions on the part-time degree in Business Studies.

#### *Qualifications*

### **Institute of Bankers: Banking Diploma Part 2**

Course Tutor J Isherwood

#### **Old Regulations Diploma Part 2 (III)**

Evening classes are arranged to cover the Part 2 examinations of the Banking Diploma.

#### **New Regulations Stage 2 (III)**

Day or day/evening class (as appropriate) will be arranged from September, 1980 leading to the new Stage 2 examinations.

#### **Financial Studies Diploma (III)**

It is hoped to be able to extend tuition to cover most subjects leading to this new qualification.

These courses enjoy the active support of the local branch of the Institute of Bankers. Syllabuses and regulations for admission can be obtained from the Secretary, The Institute of Bankers, 10 Lombard Street, London EC3.

#### *Curriculum*

#### *Building Societies*

### **Building Societies Institute, Associateship (III)**

Course Tutor D Clusky

The Polytechnic offers a full scheme of study for the Institute's examinations designed to enable students to fully qualify in two years.

Classes are held on Wednesday afternoons and evenings and are normally timetabled in two groups running simultaneously.

#### Group A:

- 1 Applied Economics
- 2 General Accounting and Taxation
- 3 Law and Practice

#### Group B:

- Personnel Management
- Accounting and Financial Control
- Building Society Management

It is intended that students starting their BSI course will join Group A while Group B will consist largely of second year students intending to complete their studies. However, it should be possible for students with particular requirements to choose subjects from either group provided they are not timetabled for the same period.

Prospective students are reminded of the Institute's advice that prior study of Accounting and Economics is necessary before these subjects are studied in the Institute's course and the Polytechnic reserves the right to insist that evidence of such prior study be produced before enrolment.

Detailed examination regulations are obtainable from the Secretary, Building Societies Institute, Fanhams Hall, Ware, Hertfordshire, SG12 7PZ.

### **Chartered Insurance Institute, Associateship Examinations**

Course Tutor D Clusky

Classes will be arranged under the regulations of the Institute for the following subjects:

#### **Associateship Examinations (III)**

Legal and Economic aspects of Insurance, Elements of Insurance, Insurances of the Person, Property and Pecuniary Insurances and Insurances of Liability. Additional subjects may be offered when there is sufficient demand.

Students wishing to enrol for any of the above classes should communicate, in the first instance, with the Education Secretary of the Preston Insurance Institute, Mr G Carter, ACII, Commercial Union Assurance Co. Ltd., 63 Guildhall Street, Preston (Tel. 58191).

Candidates holding the Ordinary National Diploma or Certificate in Business Studies with passes at credit level may be granted a subject for subject exemption from the Institute's examinations.

Syllabuses and regulations for admission can be obtained from the Secretary, The Chartered Insurance Institute, 20 Aldermanbury, London EC2V 7HY.

# School of Law

Head of School Mrs PA Thomas LLB, LL.M

## Part Time Courses

### **BA and BA (Honours) in Law (II)**

Course Leader To be appointed

A part-time course enabling students to obtain either a degree after 4 years or a degree with honours after 5 years.

The course is designed with sufficient student choice so as to appeal not only to people with varying career interests but also to those with a purely personal interest in studying law.

#### *Qualifications for entry:*

- (a) five GCE passes including at least two at Advanced level, or
- (b) four GCE passes including at least three at Advanced level, or
- (c) a good standard of pass in ONC or OND in Business Studies or their BEC equivalent, or
- (d) an HNC or HND or their BEC or TEC equivalent, or
- (e) such other qualifications, professional or otherwise, as are regarded to be equivalent by the Polytechnic.

Exceptionally, applicants may be admitted without any of the above qualifications.

Applicants will normally be required to have obtained a pass in English Language at Ordinary level of the GCE. Applicants without this qualification will have to satisfy the Polytechnic of their competence in written and spoken English.

*Exemptions:* Applicants who have passed examinations in legal subjects at degree or an equivalent standard, may be granted exemption on a subject for subject basis in years 1 and 2 of the course only.

#### **1st Year**

*Curriculum:* English Legal System, Law of Contract, Law of Torts.

#### **2nd Year**

*Curriculum:* Constitutional Law, Criminal Law, Land Laws.

#### **3rd Year**

*Curriculum:* Equity and either Politics and the Law, or Sociology of the Legal Process, plus Option I.

#### **4th Year**

*Curriculum:* Options II, III and IV.

*The optional subjects available in years 3 and 4 are as follows:*

(1) Law of Consumer Protection, (2) Labour Law, (3) Administration and the Law, (4) Company Law, (5) Conflict of Laws, (6) Law of Conveyancing, (7) Deviant Behaviour, (8) English Legal

*Note: 1 In any academic year, the Polytechnic reserves the right not to offer all the optional subjects*

*2 The present full time degree is currently undergoing resubmission to the CNA. In the light of this resubmission some changes may also be made to the present part time law degree course to bring it into line with the full time submission. Any proposed changes would have to be approved by the CNA.*

History, (9) Law of Evidence, (10) Family Law, (11) Public International Law, (12) Revenue Law, (13) Jurisprudence.

### **5th Year**

*Honours Degree:* Students who have completed the degree course successfully may proceed to the honours degree which consists of a written project of not less than fifteen thousand words and not more than twenty thousand words. Normally the project must be completed in one academic year.

*Attendance requirements:* Years 1–4. Attendance at lectures and seminars is confined to two evenings per week. Students are expected to spend one further evening using the facilities of the Law Library. Year 5 Students will be required to consult their project supervisor for a *minimum* of one half hour per week (average).

*Examinations:* In the first year of the course mid-session examinations are held at the end of the first term – set and assessed internally. Sessional examinations are held at the end of each of the four years of the degree – internally set, externally assessed.

### **Institute of Legal Executives**

Course Tutor    **To be appointed**

#### **Associate Examinations (IV)**

This is a two-year course and the Associateship will be granted to candidates successful in both parts of the examination and who have at least three years' approved experience in a legal office. Candidates without the necessary experience may still take the examinations but they will not be eligible for election as Associates until they have obtained the three years of approved experience.

*Qualifications for entry to the course:*

- (a) three GCE subjects at Advanced level including one English subject, or
- (b) four GCE subjects at Ordinary level (or CSE Grade 1) including English language and English literature (no more than two English subjects will be accepted), or
- (c) a Higher National Diploma or Certificate
- (d) an Ordinary National Diploma or Certificate
- (e) a professional or academic qualification considered by the Institute to be of equivalent standard.

*Attendance:* Wednesday afternoons.

#### **Fellowship Examination (III)**

Candidates for this examination are required to select three subjects from the official list. The Polytechnic offers classes in Contract, Tort, Criminal Law, Conveyancing 1, and Matrimonial Law. Classes in other subjects can be arranged to suit the majority of students after enrolment.

Copies of the syllabuses and regulations for admissions to the examinations can be obtained from the Secretary of Education and Training, The Institute of Legal Executives, Ilex House, Barrhill Road, Streatham, London SW2 4RW.

# School of Management Studies

Head of School TJ Squires BCom, MSc, FBIM

## Part Time Courses

### **Diploma in Management Studies (II)**

– **Public Service Management**

– **Education Management**

Course Leader To be appointed

This course covers three years of study on one half-day and one evening per week. A residential period of three days will be held each year.

The first stage of the course is intended to provide opportunity for students normally of different experience and qualification to acquire a uniform background of knowledge before proceeding to the final stage.

#### **1st Year**

(Stage 1). Nature of Management I, Behaviour in Organisations, Public Service Management I or Education Management I, Quantitative Techniques, Financial Aspects, Economic and Legal Aspects.

#### **2nd Year**

(Stage II). Nature of Management II, Manpower Studies, Public Service Management II or Education Management II, Financial Aspects, Project.

#### **3rd Year**

(Stage III). Nature of Management III, Operations Research, Public Service Management III or Education Management III, Project.

The residential parts of the programme are devoted to group activities and participatory work for which part-time study by itself allows inadequate opportunity.

The project allows the student to relate academic material to a practical situation.

The award of the Diploma is conditional upon satisfactory performance in examinations (externally assessed), project and in course work. A student must also fulfil attendance requirements.

For entry to Stage I a student must hold either:

- i A degree of a British University or
- ii A diploma in Technology of the National Council for Technological Awards or
- iii A Higher National Diploma or
- iv A Higher National Certificate with endorsements or evidence of suitable practical experience or
- v Membership of an approved professional body or
- vi Some other qualification acceptable to the Diploma Committee.

Students should be at least 23 years of age before commencing Stage I.

Students of 27 years or over without the above academic qualifications but with at least four years practical experience of suitable professional or administrative responsibility may be admitted.

The Diploma is awarded by the Council for National Academic Awards (CNAA) and holders may display the letters DMS after their names. In addition with approved managerial experience, they are also eligible for corporate membership of the British Institute of Management (AMBIM).

### **Certificate in Supervisory Studies – National Examinations Board in Supervisory Studies (III)**

Course Tutor AJ Duncalf

This is a one-year course of a general character to give men and women supervisors an opportunity to study their jobs in relation to modern works organisation. It provides instruction in the general principles of supervision and the basic supervisory skills. It is not only suitable for those in established posts in supervision, but also for those who wish to train themselves for promotion to supervisory posts.

The development of students is provided for by participative exercises including discussions, case studies, and role playing exercises. Concentrated residential study is included in the course and a residential period is provided for this purpose.

Candidates for admission to the course should normally be not less than 21 years of age, but those below this age, holding supervisory posts or considered to be potential supervisors may be admitted at the discretion of the Director. No academic qualifications are laid down as entry conditions to the course but students should have an educational background such as will enable them to benefit from the course with a reasonable expectation of success.

The course will normally be held on one full day or one half-day plus one evening per week. Special courses can be developed to meet the needs of particular industries. Flexibility of course content and times of attendance can be obtained to suit specific requirements. The course can be provided on a block release basis, modular basis, or variations of these, depending upon the needs of the industry. Special courses are available to cater for the following categories: Manufacturing, Retailing, Health Service, Civil Service, Local Authorities.

### **Certificate for Office Supervisors**

A separate Certificate in Supervisory Studies course, specially designed for office supervisors will also be offered both in the form of a one-year sessional course, on a day-release basis or one half-day and one evening basis and as a short-term course to meet the needs of any individual industry or firm.

### **Institute of Administrative Management**

Course Tutor WTK Poyner

### **Certificate in Administrative Management (IV)**

This is a one-year course for office supervisors who do not yet possess any formal qualification. Possession of this Certificate will qualify a person to become an Associate of the Institute with the right to use the designatory letters AInstAM.

*Curriculum and Examinations:* Office Administration, Organisation and Methods, Office Systems, Business Communications, People and Organisations.

*Attendance:* a whole day per week, or one afternoon and one evening, for one year.

### **Diploma in Administrative Management (III)**

This is a two-year course for persons who already possess the Certificate or some other qualification such as HNC. Possession of the Diploma will qualify a person to become a corporate member of the Institute with the right to use the designatory letters MInstAM(Dip).

*Curriculum and Examinations:* Management Information and Control (3 papers), Systems Approach to Administrative Management (2 papers), People Organisation and Change.

*Attendance:* a whole day per week, or one afternoon and one evening, for two years.

### **Institute of Production Control**

#### **Diploma in Production Control (III)**

Course Tutor G Evans

The course is designed for people who are training for, or are engaged in, the practice of production control.

The subjects to be studied are as follows:

Organisation and Management, Communications, Production Planning and Documentation, Material Control, Statistics and Operational Research, and Computers and Systems Analysis.

The student is required to submit a project during his course of study. Ideally, this will involve the identification of a problem within his own organisation, and an analysis of this problem, using knowledge gained from the course.

The course will run on a part-time and evening basis over a period of two years.

*Examinations:* Three three-hour papers at the end of each year. The project is also examined.

*Qualification for Entry:* Ordinary National Certificate or a City and Guilds Full Technological Certificate or equivalent qualifications. Candidates of mature age who have been engaged in the practice of production control for a number of years will be admitted if they can satisfy the Director of their ability to profit from the course.

### **Institution of Industrial Managers**

Course Tutor WE Illston

#### **Certificate in Industrial Management (III)**

This is a course covering two years of study on one half-day and one evening or on two evenings per week. Candidates take the IIM examination at the end of each year. Intending students should obtain a copy of the syllabuses and regulations from Mr WE Illston, School of Management Studies, Preston Polytechnic, Livesey House (Telephone 59477).

##### **1st Year**

*Curriculum:* Production Analysis, Statistics, Economic Analysis, Marketing, Organisation Studies, Communications.

## **2nd Year**

*Curriculum:* Production analysis, industrial finance, psychology and sociology, industrial relations, management of human resources.

Candidates for the Certificate Examination must register as student members of the Institution of Industrial Managers before the 31st October. Application forms can be obtained from Mr WE Illston and students are responsible for submitting them to the IIM Head Office before the closing date.

## **Diploma in Industrial Management (III)**

A one-year course leading to the academic requirements for corporate membership of the Institution of Industrial Managers.

This course represents the management in action part of the candidate's training where the knowledge gained on the Certificate Course is put to work and will include case studies, business simulations, group dynamics and similar methods. It will also include an integrated study of Industrial Management Policy:

*Qualification for entry:* Candidates must:

- (a) Hold the Certificate in Industrial Management, or
- (b) Have obtained exemption therefrom and must be acquiring industrial experience and
- (c) Must be an Associate of the Institution.

*Curriculum:* Environmental Studies, Trade Union Studies or Industrial Law, Industrial Management Policy.

*Attendance:* one afternoon and one evening, or two evenings per week. There will also be a residential weekend.

*Examinations:* Two written papers, a case study paper and a report on an analysis of an organisation.

*Qualification:* Diploma in Industrial Management.

## **Certificate in Industrial Relations (III)**

Course Tutor **MP Marchington**

The Polytechnic offers the optional subject of Industrial Relations as a course on its own. This aims at providing mature industrial managers with a fairly comprehensive coverage of the field.

Membership of this course will be open to non IIM members, although if the student wishes to take the examination he will need to become a member of the Institution. The course will cover trade union studies, employment law and negotiating techniques in addition to the main subject in a series of about forty evening lectures during the academic year.

In the case of university graduates appropriately qualified and experienced, the possession of this certificate may enable them to gain direct entry to the course leading to the Diploma in Industrial Management.

*Attendance:* Two evenings per week.

*Examinations:* A written paper and a case study paper.

*Qualification:* IIM Certificate in Industrial Relations.

### **Institute of Management Services**

Course Tutor PA Flynn

#### **Management Services Certificate (IV)**

A one-year part-time course for new entrants which will include a considerable amount of practical work in a fully equipped work study laboratory.

*Qualification for entry:* Students must satisfy the Director, through the Head of the School, of their ability to benefit from the course.

*Curriculum:* Work Study I, Work Study II, Motivation and Communication.

*Attendance:* One afternoon and one evening or two evenings, per week.

*Qualification:* Management Services Certificate.

*Examinations:* Internal.

#### **Management Services Diploma (III)**

A two-year part-time course leading to the Management Services Diploma. Applicants must have been accepted as an affiliate of the Institute of Management Services and syllabuses may be obtained from the General Secretary, IMS, 1 Cecil Court, London Road, Enfield, Middlesex.

*Qualifications for entry:* Members of the Institute who—

- (a) Hold a Degree or HND or City and Guilds 255 or an approved professional qualification or in exceptional circumstances can satisfy the Institute as to their general academic level, and
- (b) Have obtained the Management Services Certificate.

*Curriculum:* Management Services I, Management Services II, Behavioural Sciences, Personnel Function, Management Services Function, Finance Function, Organisation, Statistics, Project.

*Qualification:* Management Services Diploma.

*Examinations:* internal.

#### **Methods-Time Measurement Association (IIINP)**

Course Tutor PA Flynn

The Methods-Time Measurement Association is the United Kingdom branch of the International Methods-Time Measurement Association. Persons wishing to use methods-time measurement data should be properly trained and possess certificates of competence in the specific MTM technique. The Polytechnic course offers preparation for the three grades of Certificate and will be conducted by well qualified and experienced Methods-Time Measurement Association lecturers.

Syllabuses and regulations for admission can be obtained from the Secretary, Methods-Time Measurement Association Ltd, PO Box 20, 31 Battersby Lane, Warrington, Lancs.

### **MTM 2 Certificate.**

This course is the second general level system and is not as detailed as MTM 1 but has a greater speed of application. The course is designed for work study practitioners, rate fixers and persons intending to use pre-determined motion time systems when job cycle times are greater than one minute.

*Curriculum:* the theory and practice of MTM 2.

*Attendance:* two evenings per week for 12 weeks.

### **Institute of Personnel Management**

Course Leader **RG Crisp**

Structure of the examination scheme

The Scheme will be divided into three distinct sequential stages. Each stage has been designed as an integrated whole, and the second and third stages will build on what has gone before. The total scheme may be viewed as a system, the main components and interrelationships of which are shown below.

Stage 1 - The Introduction to Personnel Management, Personnel Information and Decision Making, Personnel Management in Context, Introduction to Organisational Behaviour.

Stage 2 - The Personnel Management Function, Employee Resourcing, Employee Development, Employee Relations.

Stage 3 - The Professional Practice of Personnel Management, Experience of Personnel Management, Work-based Projects, Research and Presentation Methods.

The examination of the Institute of Personnel Management may only be taken by student members of the Institute. The detailed arrangements for admission are given below.

Admission to Student Membership

The minimum standard is three GCE 'O' levels plus two 'A' levels, or an equivalent academic qualification. In exceptional cases an applicant who does not fulfil the minimum academic qualifications laid down by the Institute of Student Membership may be accepted. In such cases the individual must either:

- (a) have maturity and experience in management above supervisory level, or
- (b) be already engaged in personnel work or in work closely associated with personnel management and have clearly demonstrated in his career the ability to cope with the level of the course.

Such applicants may be required to attend an interview.

The minimum age for entry to student membership is 19 years.

## Lancastrian School of Management

Head of School: **Mr CW Cunliffe** (0524) 734500, Ext 101

### Part-time Courses in Management

Course Leader: **Mr CW Cunliffe** (0524) 734500, Ext 101  
Contact: **Mr CW Cunliffe** (0524) 734500, Ext 101

### Master's Degree (MSc) in Applied Studies of the University of Lancaster

Course Tutor: **Dr G. W. Smith**

Dean of School: **EK Langham BSc(Econ), CEng, MIMechE, FIProdE, MBIM**

Centred on the Preston Polytechnic, the Lancastrian School of Management is responsible for the co-ordination and development of all the comprehensive range of management education and training services sponsored by the Lancashire and Wigan Education Authorities. Residential and day courses in numerous subject areas cater for the needs of all levels of management. The School offers a full consultancy service and will undertake research assignments in the management field.

Organisations can take advantage of the programmes offered, or have courses specifically designed to meet their individual requirements.

Borwick Hall Management Centre, the residential centre for the Lancastrian School of Management, offers excellent lecturing and seminar accommodation in purpose-built accommodation. The Hall is situated at Borwick near Carnforth close to the M6 Motorway and offers full residential and catering facilities.

The Management Centre is available to organisations for any of the planned courses or they may use the facilities for their own development programmes.

For further details please contact:-

Mr CW Cunliffe, Head of Short Course Unit,  
Lancastrian School of Management, Preston Polytechnic,  
Livesey House, Heatley Street, Preston (Preston 59477).  
or New Borwick Hall, Carnforth (0524) 734500.

### The NW Regional Management Centre

The Lancastrian School is a constituent unit of the new Regional Management Centre and through this organisation the total teaching resources of the North West can be applied to industrial and organisational needs.

For further details please contact:-

The Director,  
N W R M C,  
Livesey House,  
Heatley Street,  
Preston.

Dean of Faculty **JJ Betts BSc(Lond), PhD(Birm), CChem FRIC**

The Academic Board has endorsed the concept of the Polytechnic as a comprehensive Institution of Higher Education offering courses with day release, block release, sandwich, full-time and other varieties of attendance and patterns. It is the aim of the Polytechnic that, in order to maximise student opportunity, alternative patterns of courses shall be offered for every qualification. In accordance with this aim the Faculty offers, for the part-time student, graduate, professional and technician type courses in science and technology subjects with opportunities for course transfer as the academic ability and aspiration of a student changes.

The part-time student with an ONC in Science, TEC Certificate or GCE Advanced levels may enter technician type science courses, e.g., TEC Higher Certificate courses. After obtaining such qualifications the part-time student may continue studying and enter graduate/professional courses.

Part-time students with TEC Certificate in Engineering or other suitable qualifications may enter technician courses, e.g., TEC Higher Certificate courses in Electrical and Electronic Engineering, or in Mechanical and Production Engineering. These qualifications will enable the student to seek membership of the Institution of Technician Engineers, or to a non-corporate grade of membership of the technician engineer institutions. Students wishing to aim at qualifying as professional engineers may enter the part-time BSc course in Production Engineering. This course is designed to admit students with HNC or CGLI or TEC Higher Certificate qualifications.

For the student of Building, Surveying, Civil Engineering, Town Planning or Architecture there are technician type courses leading to TEC Higher Certificates in Building, Civil Engineering, Surveying and Planning, and to Licentiatehip of the Institute of Building. Students seeking professional qualifications may continue studies and enter courses leading to qualifications of the Institute of Building, the Royal Institution of Chartered Surveyors and the Institute of Quantity Surveyors. The Polytechnic Diploma in Quantity Surveying will offer stage-by-stage exemption from the equivalent external qualification of the Institute of Quantity Surveyors.

For the part-time student who has gained graduate/professional qualifications and wishes to obtain post-graduate qualifications, the Faculty offers both taught courses and research programmes. Post-graduate qualifications include MA, Post-graduate Certificates, MPhil and PhD Degrees.

Each group of courses is operated by a Course Committee on which the part-time student is represented and which collaborates with industry through appropriate channels. The Polytechnic can respond to a dynamic and ever changing situation resulting in the growth of new courses and the fading of other courses. Staff of the Faculty are willing to discuss with interested groups the possibility of developing new courses, either short cycle or long cycle, to accommodate changing needs.

## School of Sciences

Head of School AM Short BSc, PhD, FInstMC, FInstP

### Part-time Courses in Chemistry

Course Leaders HNC TEC Higher Certificate and associated courses in Chemistry J Donnelly  
Graduateship RIC Dr JW Dodd

#### **Master's Degree (MA) in Analytical Chemistry of the University of Lancaster (I)**

Course Tutor Dr D Brattan

A two-year and one-term course leading to the degree of Master of Arts.

*Qualifications for entry:* entrants will be expected to be over the age of 21 and hold either a degree of a British university or the CNAA, with chemistry as a main subject, or the Graduateship of the Royal Institute of Chemistry, or an equivalent qualification.

Tutor Dr D Brattan

*Curriculum:* general topics: practice of analysis, statistics/computing, classical/separative methods, special lectures (as seminars); spectroscopic methods: uv/visible, X-ray, atomic, mass, vibration and spin resonance spectroscopy; non-spectroscopic methods: electro-chemical, radiochemical and thermal methods. A research project.

*Attendance:* one full day and one evening per week (Wednesday)

*Examinations:* Theory examinations will be held at the end of the second year. During the following term students will undertake their project.

*Qualification:* students successful in the examinations and who reach a satisfactory standard in a project and assessed course work will receive the degree of MA awarded by the University of Lancaster.

#### **Master of Philosophy Degree (MPhil) or Doctor of Philosophy Degree (PhD) by Research (I)**

Course Tutor Dr JD Hepworth

*Qualifications for entry:* entrants will have a degree of a British university or the CNAA with chemistry or biology as a main subject, or the Graduateship of the Royal Institute of Chemistry, or an equivalent qualification.

*Attendance:* individually arranged between the student and his supervisor. An MPhil degree can be obtained after 2 to 3 years of part-time study, either during the day or in the evening.

*Qualification:* students register either with their own university or with the CNAA and the degree is awarded on submission of a satisfactory thesis and successful completion of a viva.

*Areas of research:* (1) design of coordination compounds for use as catalysts; (2) synthetic aromatic and heterocyclic chemistry; (3) chemistry and photochemistry of biologically active sterically hindered basic dyes; (4) removal of metal ions by flotation methods; (5) environmental distribution of trace metals.

## Graduate Membership of the Royal Institute of Chemistry (II)

Course Tutor Dr JW Dodd

A three-year course leading to the Graduate Membership examinations of the Royal Institute of Chemistry. The Grad. RIC Part I examination is sat at the end of the first year and the Grad. RIC Part II examination at the end of the third year.

*Qualification for entry:* HNC Chemistry or equivalent qualification together with GCE Advanced levels or assessed RIC ancillary examinations in Mathematics and *either* Physics *or* another acceptable subject.

### 1st Year

Tutor Dr B Smallwood

*Curriculum:* review and extension of chemical subjects studied.

*Attendance:* all day Wednesday and Wednesday evening.

*Examinations:* Grad. RIC Part I; internal, externally assessed.

### 2nd and 3rd Years

Tutors Dr RG Brown and J Donnelly.

*Curriculum:* general topics relevant to professional chemists, recent advances in inorganic, organic and physical chemistry.

*Attendance:* all day Monday and Monday and Tuesday evenings.

*Examinations:* Grad. RIC Part II

*Qualification:* Graduate Membership of the Royal Institute of Chemistry.

## Higher National Certificate in Chemistry (III)

Course Tutor Dr AD Jones

The course is being replaced with the TEC Higher Certificate course in Chemistry and this year the second year only of this course is offered.

Students who wish to proceed beyond HNC to professional qualifications of the RIC must pass GCE 'A' level mathematics or its equivalent, have taken a course in physics at GCE 'A' level standard and have passed a further subject (e.g. physics, biology, general studies) at GCE 'A' level or equivalent standard.

### 2nd Year

Tutor Dr AD Jones

*Curriculum:* inorganic chemistry; transition elements, co-ordination compounds, carbonyls, interhalogens; organic chemistry; aromatic and heterocyclic chemistry, stereo-chemistry; physical chemistry; thermodynamics, electrochemistry, phase equilibria, surface and colloid chemistry; general studies.

*Attendance:* all day Thursday and Thursday evening.

*Examinations:* Internal, externally assessed.

*Qualification:* Higher National Certificate in Chemistry.

### **TEC Higher Certificate in Physical Science (Chemistry) (III)**

Course Tutor Dr AD Jones

A two year course leading to the TEC Higher Certificate in Physical Science (Chemistry). The course replaces the Higher National Certificate course in Chemistry and the first year is offered.

*Qualification for entry:* TEC Certificate in Science, ONC Sciences, or passes in GCE 'A' level Chemistry and either Mathematics or Physics. Students who wish to proceed beyond the Higher Certificate should note the RIC ancillary subject requirements listed under the Higher National Certificate in Chemistry course above.

#### **1st Year**

Tutor Dr G Newton

*Curriculum:* inorganic chemistry; chemical bonding, atomic structure, valency, typical elements, radio-chemistry; organic chemistry; electronic theory of organic chemistry, functional group chemistry, stereo-chemistry; physical chemistry; thermodynamics, electrochemistry, kinetics; general studies.

*Attendance:* all day Tuesday and Tuesday evening

*Examinations:* internal

### **Licentiatehip of the Royal Institute of Chemistry (III)**

Course Tutor Dr RG Brown

A one-year course in which the HNC endorsement subject advanced analytical chemistry is studied. Successful completion of this course, together with approved ancillary mathematics and physics, fulfils the academic requirements for the Licentiatehip of the Royal Institute of Chemistry.

*Qualifications for entry:* students must have reached a standard in chemistry which is equivalent to that of a Higher National Certificate and have satisfied the RIC ancillary requirements (see under HNC Chemistry).

*Curriculum:* radiochemistry, compleximetry, non-aqueous titrimetry, ion exchange resins, potentiometry, pH, electro-analysis, coulometry, polarography, amperometry, spectrometry, chromatography.

*Attendance:* all day Monday and Monday evening

*Examinations:* HNC endorsement subject, advanced analytical chemistry

*Qualification:* Advanced Analytical Chemistry endorsement subject for Licentiatehip of the Royal Institute of Chemistry.

## Part Time Courses in Biology

Course Leader F Ramsden

### Master of Philosophy Degree (MPhil) or Doctor of Philosophy Degree (PhD) by Research (I)

Course Tutor Dr M Edmunds

*Qualifications for entry:* entrants will have a degree of a British university or the CNAA with chemistry or biology as a main subject, or the Membership of the Institute of Biology, or an equivalent qualification.

*Attendance:* individually arranged between the student and his supervisor. An MPhil degree can be obtained after 2 to 3 years of part-time study, either during the day or in the evening.

*Qualification:* students register either with their own university or with the CNAA and the degree is awarded on submission of a satisfactory thesis and successful completion of a viva.

*Areas of Research:* cytotaxonomy of grasses; photosynthesis; heavy metals in terrestrial and freshwater ecosystems; brain metabolism in development; biodeterioration of wood; effects of diet and exercise on energy metabolism in mammals; polymorphisms in invertebrates.

### Membership of the Institute of Biology in Ecology and Behaviour (II)

Course Tutor Dr M Edmunds

A three-year part-time course leading to Membership of the Institute of Biology which is an Honours Degree equivalent qualification. It is designed for those with an HNC or HND in a biological subject or a Teacher's Certificate with biology as a main subject. The course is intended for non-graduate teachers who wish to broaden their expertise, but would also be useful to those employed in nature conservation, environmental management and pollution control.

*Qualifications for entry:* Applicants must possess *either* (i) an HNC or HND in applied biology, biology, medical laboratory subjects, chemistry or applied chemistry, *or* (ii) an HND in food technology or agriculture, *or* (iii) a Teacher's Certificate with biology as a main subject and a pass at GCE 'A' level or equivalent in a biological subject together with a pass at GCE 'O' level in chemistry, mathematics and physics, *or* (iv) a degree in an appropriate subject. Graduates may be awarded exemption from part of the course.

#### 1st Year

Tutor Dr EH Evans

*Curriculum:* Principles of biology, statistics, topics in ecology and behaviour, and a case study of a biological problem of major current interest.

*Attendance:* all day Wednesday and Wednesday evening

*Examinations:* MIBiol Part I (1/3 internal and 2/3 external assessment)

*Qualifications:* Licentiatehip of the Institute of Biology.

#### 2nd Year

Tutor Dr CJ Sutherland

*Curriculum:* topics in ecology and behaviour to include, population ecology; community ecology; brain and behaviour; hormones and behaviour; fear and aggression; sexual behaviour and computing.

*Attendance:* all day Wednesday and Wednesday evening

*Examinations:* internal.

### **3rd Year**

Tutor Dr M Edmunds

*Curriculum:* topics in ecology and behaviour to include man's impact on nature; social behaviour; physiological and behavioural ecology; teaching ecology and behaviour, and a project.

*Attendance:* all day Friday and Friday evening

*Examinations:* MIBiol Part II (Internal, externally assessed)

*Qualification:* Membership of the Institute of Biology.

### **TEC Higher Certificate in Medical Laboratory Subjects (III)**

Course Tutor F Ramsden

A two-year course leading to the TEC Higher Certificate in Medical Laboratory Subjects, a qualification acceptable for State Registration. The examination scheme is based on a background of sciences appropriate to medical laboratory work together with one specialist subject from the range of clinical chemistry, haematology and serology, medical microbiology, histopathology and cytology.

To qualify for a TEC Higher Certificate the student must be successful in all the examinations scheduled. An integrated hospital training is an essential part of the course and students should hold a full-time post in a hospital or other approved laboratory.

*Qualifications for entry:* Ordinary National Certificate in Sciences with a pass in medical laboratory science or basic or elective biology or a TEC Certificate in Sciences with Medical Laboratory Science or GCE passes in four appropriate subjects, two science subjects having been passed at 'A' level. There are special arrangements for holders of Higher National Certificates or Diplomas in other science subjects. Further details can be obtained from the Course Leader.

### **1st Year**

Tutor Dr P Foster

*Curriculum:* analytical chemistry techniques, organic chemistry, biochemistry, cell physiology, molecular biology, specialist subject, general and related studies.

*Attendance:* one day (Tuesday) and one evening per week

*Examinations:* internal.

### **2nd Year**

Tutor F Ramsden

*Curriculum:* organic and physical chemistry, biochemistry, cell physiology, molecular biology, specialist subject, general and related studies.

*Attendance:* one day (Thursday) and one evening per week

*Examinations:* internal, externally assessed

*Qualification:* Higher National Certificate in Medical Laboratory Subjects with appropriate specialist subject.

### **Polytechnic Certificate in Physiology for Nurses (III)**

Course Tutor Dr JF Brown

A one-year course, leading to the award of a Polytechnic Certificate which has been specifically designed for Registered Nurses who wish to obtain a deeper understanding of the physiological processes which form the basis of modern nursing practice.

The course will include lectures, practical and tutorial sessions together with a work-related project which examines the physiological principles involved in the day-to-day working experience of the student.

Successful completion of the course will provide direct entry into the course for Diploma in Nursing of the University of London.

*Attendance:* one evening per week (Tuesday) for one year.

*Qualifications for entry:* a registered nursing qualification.

*Examinations:* internal Polytechnic examinations and assessment of project work.

*Qualification:* Polytechnic Certificate in Physiology for Nurses.

### **Diploma in Nursing of the University of London, Parts A and B (III)**

Course Tutor Dr JJ Waring

The course is organised in two parts, a one-year course covering the examination requirements for Part A of the Diploma and a one-year course for Part B. Candidates for Part B will be examined on the causes and effects of disease and also in a branch of nursing in which they have specialised. Additional optional subjects (a) clinical teaching and (b) management, are also offered.

*Qualifications for entry:* full details are set out in a special pamphlet obtainable from the Course Adviser and can be stated briefly as:

Part A – Students must be registered nurses and must have a standard of general education equivalent to GCE with passes in English language and two other subjects at ordinary level. Students who do not have the required GCE passes may enter for a qualifying examination, details of which are obtainable from the Course Tutor.

Part B – A pass in Part A, and the candidate must be registered on the appropriate part of the Register of Nurses in relation to the branch of nursing offered for the examination, or equivalent status.

### **1st Year (Part A).**

Tutor Dr C Sutherland

*Curriculum:* physiology, theory and practical; development of nursing as a profession; psychology.

*Attendance:* one day per week (Tuesday).

### **2nd Year (Part B).**

Tutor Dr JJ Waring

*Curriculum:* the causes and effects of disease, theory and practical; clinical teaching; management.

*Attendance:* one morning per week or one day per week if the management or clinical teaching options are studied.

*Qualification:* Diploma in Nursing of the University of London.

## **Part Time Courses in Physics**

Course Leader Dr DR Peck

### **Master of Philosophy Degree (MPhil) or Doctor of Philosophy Degree (PhD) by Research (I)**

Course Tutor Dr A Christy

Higher degrees may be obtained by performing appropriate research work and following a programme of guided reading/lectures. Opportunities for research vary from time to time will be from the following areas: properties of carbon composite materials; properties of liquid crystals; thin film physics; nuclear structure physics, astrophysics.

*Qualifications for entry:* entrants will have a degree of a British university or the CNAA with Physics as a main subject, or the Graduateship of the Institute of Physics, or an equivalent qualification.

*Attendance:* individually arranged between the student and his supervisor. An MPhil degree can be obtained after 3 years of part-time study, either during the day or in the evening. Suitable candidates may transfer to a PhD degree and complete their studies in a minimum of 4 years part-time.

*Qualification:* students register either with their own university or with the CNAA and the degree is awarded on submission of a satisfactory thesis and successful completion of a viva.

### **Bachelor of Science Degree (BSc) in Physics of the Council for National Academic Awards (II)**

Course Tutor Dr DR Peck

A four-year course leading to the BSc degree in Physics. The course is designed to meet the needs of two main groups of students.

- (a) Non-graduate teachers of physics and electrical subjects in schools and colleges of Further Education
- (b) Persons employed in the physics and light electrical sectors of local industry

To accommodate the varying requirements of the above two categories the degree is organised on a *credit* basis. A student taking the degree over four years would study a total of 16 credits and associated practical work. In consultation with members of the Polytechnic staff, students will choose a suitable programme of work from the list of credits given below. Although the normal course extends over four years, exemption from certain credits can be granted so that the time spent on the course is reduced.

*Qualifications for entry:* The course is primarily designed for mature students who would normally be at least 20 years of age. A wide range of entry qualifications can be considered, examples of which include:

- (a) ONC in Science or Engineering
- (b) GCE 'A' level subjects including Mathematics or Physics
- (c) A Teachers' Certificate from a College of Education
- (d) HNC or HND in Applied Physics or Engineering

Students with other qualifications, including passes in Open University Foundation Courses, are invited to discuss their suitability for entry to the course.

### **1st Year**

Tutor **Dr DR Peck**

*Credits:* general physics I, thermal physics I, electricity and magnetism, mathematics I.

*Examinations:* credit examinations will be set at the end of the summer term.

### **2nd Year**

Tutor **Dr DR Peck**

*Credits:* general physics II, electronics I, modern physics and solid state physics, mathematics II

*Examinations:* credit examinations will be set at the end of the summer term.

### **3rd Year**

Tutor **Dr M Rhodes**

*Credits:* electronics II and electromagnetic theory physical optics and wave mechanics, electric and magnetic properties of materials, thermal physics II, mathematics III.

*Examinations:* credit examinations will be set at the end of the summer term.

### **4th Year**

Tutor **Dr M Rhodes**

*Credits:* semiconductor physics and structure of materials, low temperature techniques and nuclear physics, plus two of the following: electronic systems, advanced optics and acoustics, physical techniques for materials structure investigations, spectroscopy, relativity and astrophysics.

*Attendance for all years:* one full day and one evening per week, or one afternoon and two evenings per week, as agreed by the Course Tutor.

*Examinations:* credit examinations will be set at the end of the summer term.

*Qualifications:* Bachelor of Science degree awarded by the Council for National Academic Awards.

### **Higher National Certificate in Applied Physics (III)**

Course Tutor Dr DR Peck

A two-year course which is physics based but not physics dominated. The aim of the course is to train technologists who can support the work of graduate engineers and scientists in industry. The course is also a first stage of a part-time route to full graduate qualification, with corporate membership of the Institute of Physics. Many Universities offer direct entry to the second year of their degree courses to candidates with a good HNC in Applied Physics. Suitable post HNC studies can also lead to membership of professional bodies such as the Institute of Measurement and Control and the recently formed Institute of Nuclear Engineering. Meritorious performance on the Polytechnic based HNC gives direct entry to the third year of the BSc part-time course in Physics.

*Qualifications for entry to the first year of the course:*

- 1 Applicants must have studied both physics and mathematics to GCE Advanced level standard and passed in one of these subjects. In some instances students who are admitted with a single 'A' level pass may have to undertake supplementary studies in either physics or mathematics and sit an examination at the end of their first term in Polytechnic, or
- 2 A TEC Certificate in Science with Physics and Mathematics at the appropriate level.
- 3 An Ordinary National Certificate in Sciences with passes in the following subjects: (a) basic physics, basic mathematics and elective physics; or (b) basic physics with a mark of at least 50%, basic mathematics and elective mathematics; or (c) basic physics, basic mathematics and a subject comprising approved sections of the elective physics and elective mathematics syllabuses, or
- 4 An Ordinary National Diploma in Sciences, normally including passes in major physics and minor mathematics or
- 5 An Ordinary National Certificate in Applied Physics, or
- 6 An Ordinary National Certificate in Engineering with credits in Physics II and electrical engineering 'A' and passes in mathematics and one other subject, or
- 7 A qualification deemed by the Physics Joint Committee to be equivalent to any of the above.

#### **1st Year**

Tutor Dr DR Peck

*Curriculum:* pure physics: mechanics, elasticity viscosity, kinetic theory, heat and thermodynamics;

mathematics; integration, differentiation, complex numbers, Laplace transforms; applied physics: electronics I, physical techniques for material structure investigation; general studies.

*Attendance:* one full day and evening plus an additional evening per week.

*Examinations:* internal

## 2nd Year

Tutor Dr DR Peck

*Curriculum:* pure physics: wave phenomena, geometrical optics, atomic and nuclear physics, electricity and magnetism; mathematics: co-ordinate geometry, determinants, matrices, Fourier analysis; applied physics: electronics 2, physical techniques for material structure investigation 2; general studies.

*Attendance:* one full day and an additional evening per week.

*Examinations:* internal, externally assessed.

*Qualification:* Higher National Certificate in Applied Physics.

## Graduateship of the Institute of Physics (II)

Course Tutor Dr PR Bissell

A two-year part-time course for students with qualifications in science or engineering. The aim of the course is to secure corporate membership of the Institute of Physics for physicists with intermediate qualifications and also for engineers and scientists who aspire to senior positions and need to have professional membership of one or more corporate bodies.

*Qualifications for entry:* The Associateship of the Institute of Physics or a qualification deemed by the Physics Joint Committee to be equivalent. Examples of such equivalents are:

- 1 The HND in Applied Physics including a pass in mathematics
- 2 The HND in Electrical Engineering when obtained at the Malvern College of Electronics
- 3 The HNC in Applied Physics with an approved group of supplementary subjects
- 4 The HNC in Applied Physics which has been adjudged as being of sufficiently high all round standard, and followed by a further year of approved study
- 5 A degree in physics at ordinary or pass level\*
- 6 Degrees in Materials Science, Physical Metallurgy, Physical Electronics, Electrical Engineering, Chemical Physics, Theoretical Physics and Mathematical Science\*
- 7 Candidates who have recently been unsuccessful in the final examinations of an honours degree course in physics at a UK university. Such candidates should apply direct to the Institute of Physics for details of procedure.

\* Applicants who wish to enter the course under sections 5 and 6 should write to the Head of the School of Sciences giving full details of their qualifications and of courses which they have undertaken.

*Curriculum:* atomic and nuclear physics; wave motion and electromagnetic radiation, thermal and statistical physics; solid state physics; applied acoustics or nuclear instrumentation and technology.

*Attendance:* one full day and evening plus an additional evening per week.

*Examinations:* externally set by the Institute of Physics. Three papers can be taken after one year and the remaining two at the end of the course.

*Qualification:* Graduateship of the Institute of Physics.

## Evening Courses

### **Polyphysics (IV)**

Course Tutor **Dr E Webster**

This is a preliminary course in Physics aimed at providing students with sufficient background material to embark on a degree in Physics. Students are provided with written text material, practical and tutorial sessions being held at the Polytechnic.

*Qualifications for entry:* none.

*Curriculum:* mechanics, optics, electricity and magnetism, properties of materials, nuclear physics and electronics.

*Attendance:* one or two evenings per week.

*Examinations:* continuous assessment.

## Special Courses

Special courses are arranged from time-to-time on the following topics:

Astronomy

Radioisotopes for Teachers

Introductory Electronics and Nucleonics

Noise

Photometry

# School of Mathematics, Statistics and Computing

Head of School DW Walsh BSc, MSc, MBCS

## Part Time Courses

Course Leaders BSc in Mathematics, HNC in Mathematics, Statistics and Computing  
JD Rimmer  
British Computer Society Part I Dr HS Jackson  
Real Time Computing Dr WM Walmsley

### **Bachelor of Science Degree (BSc) in Mathematics of the Council for National Academic Awards (II)**

Course Tutor D Stelling

A four-year course leading to the BSc degree in Mathematics. The course is designed to appeal to mature students who already have a sound appreciation of mathematics at secondary level. It should be of particular interest to two main groups:

- (a) Non-graduate teachers of mathematical subjects in schools and Colleges of Further Education
- (b) Persons employed locally in a scientific or technological environment.

To accommodate the varying requirements of the above two categories, the degree is designed on a unit basis. A choice of units may be offered in the final year, depending on demand and availability of staff. The normal course extends over four years but exemption from certain units can be granted so that time spent on the course is reduced. A student taking the degree over four years would study a total of 18 units.

*Attendance:* two patterns of attendance may be available:

- (a) one full day and one evening per week
- (b) one afternoon and two evenings per week.

*Qualifications for entry:* the course is primarily designed for students who would normally be at least 20 years of age. A wide range of entry qualifications can be considered, examples of which include:

- (a) GCE 'A' level subjects including mathematics
- (b) HNC or HND in mathematics, statistics and computing
- (c) A Teacher's Certificate including mathematics as a main-level subject
- (d) ONC or OND in an appropriate subject with a good attainment in mathematics
- (e) Satisfactory completion of 'Polymaths'.
- (f) TEC Certificate or Diploma including mathematics to Level III

Students with other qualifications are invited to discuss their suitability for entry to the course.

### **1st Year**

Algebra I, analysis I, computing and numerical analysis I, statistics I.

*Attendance:* all day Wednesday and Wednesday evening, or Monday evening and Wednesday afternoon and evening.

*Part I Examinations:* unit examinations will be set at the end of the summer term.

## **2nd Year**

Analysis II, mathematical methods, applied mathematics, computing and statistics II.

*Attendance:* all day Wednesday and Wednesday evening, or Monday evening and Wednesday afternoon and evening.

*Part I Examinations:* unit examinations will be set at the end of the summer term.

## **3rd Year**

Algebra II, operational research I, statistics III, complex analysis.

*Attendance:* all day Tuesday and Tuesday evening or Tuesday afternoon and Thursday evening.

## **4th Year**

Numerical analysis II, linear analysis, plus two of the following: statistics IV, operational research II, celestial mechanics, hydrodynamics.

*Part II Examinations:* unit examinations will be set at the end of the summer term.

*Qualifications:* Bachelor of Science degree awarded by the Council for National Academic Awards.

## **Higher National Certificate in Mathematics, Statistics and Computing (III)**

Course Tutor JD Rimmer

A two-year course for those whose work in Industry or Commerce has a mathematical foundation. The treatment is such as to ensure that students can apply their knowledge of mathematics with understanding to problems which they meet in their employment. A significant part of the course work will be concerned with an introduction to programming an automatic digital computer and students will be expected to write successfully a number of simple programs. The Institute of Mathematics and its Applications will accept the Higher Certificate as giving exemption from some of its professional examinations.

*Qualifications for entry:* an Ordinary National Certificate in Sciences with passes in basic mathematics and elective mathematics; or GCE 'A' level in mathematics together with three other subjects at GCE 'O' level; or a qualification deemed by the Joint Committee to be equivalent to either of the above, eg an Ordinary National Certificate or Diploma with sufficiently good passes on a suitable syllabus in mathematics.

## **1st Year**

Tutor TS Griggs

*Curriculum:* mathematics: algebra, vectors and matrices, dynamics; numerical analysis; iterative methods, interpolation, numerical differentiation and integration, basic ideas of programming, a high level language; statistics: probability, descriptive statistics, large sample significance tests, correlation, regression, non-parametric statistics; general studies.

*Attendance:* all day Wednesday and Wednesday evening

*Examinations:* internal.

## **2nd Year**

Tutor JD Rimmer

*Curriculum:* mathematics: functions of a real variable, convergence, ordinary differential equations, Fourier series; numerical analysis; solution of sets of linear equations, matrices, numerical solution of ordinary differential equations; statistics; small sample significance tests, quality control, sampling inspection schemes, time series analysis, general studies.

*Attendance:* all day Wednesday and Wednesday evening

*Examinations:* internal, externally assessed.

*Qualification:* Higher National Certificate in Mathematics, Statistics and Computing.

## **Licentiatehip of the Institute of Mathematics and its Applications (IIINP)**

Course Tutor JD Rimmer

A one-year course for those who have obtained a Higher National Certificate in Mathematics, Statistics and Computing.

*Curriculum:* mathematical techniques of operational research, numerical methods and a high level computing language.

*Attendance:* Tuesday.

*Examinations:* internal, externally assessed.

*Qualification:* the academic requirements for the qualification of Licentiatehip of the Institute of Mathematics and its Applications.

## **British Computer Society, Part I (III)**

Course Tutor Dr HS Jackson

A five-term course for students employed in the computing industry who wish to embark on a course of study leading to the professional qualifications of the British Computer Society. Details of the Part II study requirements can be obtained from the course tutor.

*Qualifications for entry:* GCE 'O' level in five subjects, two of which must be mathematics and English language. Candidates for the Part I examination must enrol as Student Members of the British Computer Society.

*Curriculum:* the General Section on computing knowledge, plus two options as available from: Option B, programming; Option C, data processing; Option D, analysis and design of information processing systems.

*Attendance:* terms 1-3 Tuesday afternoon and evening; terms 4-5 Thursday afternoon and evening.

*Examinations:* these are held annually in April and consist of two compulsory papers covering the

General Section of the syllabus, and one paper in each of the two selected options.

*Qualification:* Part I Examination of the British Computer Society.

### **BEC/TEC Higher National Certificate in Computer Studies (III)**

Course Tutor Dr WM Walmsley

This is a two year part-time course which provides for the continuing education of personnel employed in a computing environment or other areas closely associated with the application of computers in Business and Industry. The first year of the course is offered.

The course covers both the use of computers in commercial organisations and in real-time process control and monitoring applications. To this end the course embraces a variety of programming, business and real-time studies.

The Polytechnic intends to introduce the BEC/TEC Higher National Diploma Course in Computer Studies. This is a three year part-time course, the first two years of which are common with the Higher Certificate course. The final year will extend the subject matter in greater depth and will provide specialist studies in both real-time and business computing.

*Qualifications for entry:* Students admitted to the Higher National Certificate course must show adequate ability in the use of English and should normally possess one of the following:

- (a) a BEC/TEC National Certificate or Diploma in Computer Studies.
- (b) a TEC Certificate or Diploma.
- (c) a BEC National Certificate or Diploma.
- (d) GCE passes in four subjects, one subject being at Advanced level and one subject being Mathematics.
- (e) any qualification deemed to be equivalent to the above by the Course Leader.

#### **1st Year**

*Curriculum:* Computing, programming, use of computers in commercial organisations, real-time computing.

*Attendance:* one day and one evening per week.

*Assessment/examinations:* internal, externally moderated.

## **Evening Courses**

### **IMA Polymaths Diploma (IV)**

Course Tutor D Stelling

A one-year course for mature students covering preparatory material for entry to a degree course in mathematics. The course is run on a national basis and there are no formal entry requirements.

*Attendance:* two evenings per week.

*Examinations:* continuous assessment.

*Qualification:* satisfactory completion of the course will be accepted as satisfying the entry requirements to CNA degree and honours degree courses in mathematics.

### **Polytechnic Certificate in Business Data Processing** (Subject to final approval) (III NP)

Course Tutor WR Madill

A course leading to the award of a Polytechnic Certificate which has been specifically designed for students who wish to obtain a knowledge of the COBOL programming language and its application to business data processing systems.

The course will include lectures, tutorials and practical sessions using the Polytechnic computers for project work and may provide entry to the Higher National Certificate Course in computer studies.

*Entry requirements:* candidates will be selected for entry to the course by interview and individual assessment.

*Attendance:* one evening per week for one year.

*Examination/Assessment:* student progress is monitored by in course assignments and final examination.

*Qualification:* Polytechnic Certificate in Computer Studies

### **Higher National Certificate in Mathematics, Statistics and Computing** (III)

Course Tutor JD Rimmer

A two-years course for mature students whose work or interests make greater mathematical demands than their previous training can support.  
Details may be found on page 42.

#### **1st Year**

*Attendance:* two evenings per week.

*Examinations:* internal.

#### **2nd Year**

*Attendance:* two evenings per week.

*Examinations:* internal, externally assessed.

*Qualification:* Higher National Certificate in Mathematics, Statistics and Computing.

### **Special Courses**

Course Tutors D Stelling (mathematics courses), DW Nash (computing courses)

A wide range of special courses are presented each year depending on demand. Specific courses

for local industries are designed according to need in conjunction with individual firms. Further details may be obtained through the Head of School.

### **Real-time Computing**

A full-time/sandwich modular short course, covering a total span of 12 weeks, based upon the application of 16-bit microprocessors. The course is designed for organisations who require trained personnel to design, develop or maintain complex real-time systems such as those found in the process control, telecommunications or military areas. The courses take full recognition of the impact of microprocessor technology in these systems.

The course is approved by the Engineering Industry Training Board for grant purposes as outlined in EITB-IP52.

*Curriculum:* course modules cover computer architecture and basic systems software, 16-bit microprocessors, CORAL-66 as a programme development language, MASCOT system design methodology and a major project.

*Attendance and Fees:* Further details, including course dates and course fees are available from the course tutor (computing courses).

### **Mathematics Courses**

Among the range of special courses offered on demand are courses including Applied Statistics, Differential Equations, Numerical Methods.

### **Computing Courses**

Among the range of special courses offered on demand are courses including all major Programming Languages, Microprocessor Applications, Design and Implementation of Computer based systems.

## School of Construction and Urban Studies

Head of School TM Ryan BSc (EstMan), FRICS, FIQS

### Part Time Courses

Course Leaders    **Building:** SR Cardwell  
                          **Surveying, Cartography, Planning:** Mrs MA MacKeith  
                          **Building Production Management:** JM Patchett  
                          **Quantity Surveying:** DA Wilde  
                          **Estate Management and General Practice Surveying:** GS Holden  
                          **Civil Engineering:** B Carter

#### **Institute of Building, Final Examination Part II (II)** (Proposed Polytechnic Diploma in Building Production)

Course Tutor    WH Davies

A two-year course of study at first degree level, leading to the Final Examination Part II. The structure of the examination offers optional subjects in addition to the management disciplines of production and principles. The Institute's regulations should be consulted with regard to appropriate exemptions.

*Curriculum:* building production and management, principles of management, plus a choice of either (i) economic and quantitative analysis, or (ii) management practice.

*Attendance:* Tuesday and up to two evenings per week.

*Examinations:* Institute of Building. If the Institute of Building recognise the new Polytechnic Diploma the student will take internal examinations which, on successful completion, will carry exemptions from the external examinations in Principles of Management and Optional Subject.

*Qualification:* Membership of the Institute of Building after successful completion of the Part III requirements.

#### **Institute of Building, Final Examination Part I (II)**

Course Tutors    **First Year:** SR Cardwell  
                          **Second Year:** T Lonsdale

A two-year course of study designed to prepare students for the Institute's examination.

*Curriculum:* building technology and practice, materials and environmental science, building law and contracts, economics of industry, and economic and quantitative analysis.

*Attendance:* Wednesday, day and evening.

*Examinations:* Institute of Building

*Qualification:* Final Examination Part I of the Institute of Building.

The Institute of Building now offers special Diplomas in (i) Building Maintenance Management, and (ii) Estimating. The appropriate courses can be provided to satisfy the published syllabi for

candidates meeting the requirements of the regulations.

### **Institute of Building, Licentiate Examination (III)**

Course Tutor T Lonsdale

A two-year course which leads to the Licentiate examination of the Institute of Building which is an examination for student and technician members and other exempted candidates who wish to proceed to the Higher Technician class of membership.

*Curriculum:* Group II: technology (2 papers), services and equipment (1 paper), measurement and economics (2 papers). Special arrangements can be made for other subjects.

*Attendance:* Wednesday day and evening

*Examination:* Licentiate examination of the Institute of Building

*Qualification:* Licentiateship of the Institute of Building.

### **TEC Higher Certificate in Building Studies (formerly Higher National Certificate in Building) (III)**

Course Tutor MJ Murray

A two-year course for technicians in Building, Architecture, Building and Quantity Surveying. It leads to the award of the Higher Certificate in Building Studies and to the qualification of the Institute of Building, the Institute of Quantity Surveyors, the Society of Architectural and Associated Technicians, the Society of Surveying Technicians, and the Incorporated Association of Architects and Surveyors.

The Technician Education Council (TEC) Higher Certificate in Building Studies has replaced the Higher National Certificate course.

*Qualifications for entry:* students admitted to the course must possess either (1) the Ordinary National Certificate/Diploma in Construction or Building, (2) TEC Certificate or Diploma in Building, or (3) other approved examination passes and special case entries.

#### **1st Year**

Tutor MJ Murray

*Curriculum:* a programme of five units of study which will vary with the occupational group of the student.

*Attendance:* Thursday day and evening

*Examinations:* internal.

#### **2nd Year**

Tutor MJ Murray

*Curriculum:* a programme of five units of study which will vary with the occupational group of the student.

*Attendance:* Tuesday day and evening  
*Examinations:* internal, externally assessed

*Qualification:* the TEC Higher Certificate in Building Studies.

### **TEC Higher Certificate in Building Studies – Post Advanced Craft Students (III)**

Course Tutor: SR Cardwell

A unique course leading to the TEC Higher Certificate in Building Studies is available and is run jointly between the Polytechnic and the WR Tuson College, Preston and between the Polytechnic and the Blackpool and Fylde College of Further and Higher Education. The course is specially designed for holders of an advanced Craft Certificate in a Building Trade and details may be obtained from any of the Colleges collaborating in this scheme.

### **Higher National Certificate in Building, Supplementary Studies (III)**

Course Tutor SR Cardwell

A one-year course for Architectural Technicians who have gained a Higher National Certificate or equivalent and wish to become members of the Society of Architectural and Associated Technicians. They are required to undertake further studies to obtain a Certificate of Supplementary Study in Building Technology and other optional additional subjects.

Building and Quantity Surveying Technicians who hold the Higher National Certificate in Building take one or more of the appropriate Certificates of Supplementary Study.

These can gain exemption from the equivalent examinations in the Final Part I Examination of the Institute of Building and of other Professional Institutes.

*Curriculum:* building law, economics of industry, building technology I, building regulations, maintenance and adaptation of buildings.

*Attendance:* Wednesday day and evening  
*Examinations:* internal, externally assessed

### **Building Surveying and Building Control**

Course Tutor SR Cardwell

A course over two years for Building Surveyors and Control Officers after obtaining a Higher National Certificate in Building or equivalent. The examinations are those of the Incorporated Association of Architects and Surveyors, the Institution of Building Control Officers and other related Professional Institutes.

#### **Part 2 Course (III)**

*Curriculum:* design construction and fire studies, building control or construction project and subjects selected from Groups A and B of the syllabus, viz structures and soil mechanics.

*Attendance:* Monday day and evening

*Examinations:* internal, with internal assessment, or by the Professional body.

### **Part 3 Course (III)**

*Curriculum:* maintenance and adaptation of buildings, structure, science and services, administration, soil mechanics, building control and project for the test of professional competence and dissertation.

*Attendance:* Friday, day and evening

*Examination:* by Professional body.

## **Polytechnic Diploma in Quantity Surveying (II)**

Course Tutor DA Wilde

A course for Quantity Surveyors leading to the award of The Polytechnic Diploma in Quantity Surveying. The course has been approved by The Institute of Quantity Surveyors for stage-by-stage exemptions from their professional examinations. The course will also prepare students for the external examinations of The Royal Institution of Chartered Surveyors. (Quantity Surveying Division).

Students may join or leave the course at Part 1, Part 2 and Final levels.

*Qualifications for entry:* applicants must possess one of the following:

- (a) GCE in four subjects, three being at 'A' level.
- (b) GCE in five subjects, two being at 'A' level.
- (c) OND in Building or Construction.
- (d) A good ONC in Building or Construction.

### **Part 1 Course**

*Curriculum:* construction technology, measurement of building work, land surveying science of services, economics, mathematics, law.

*Attendance:* one day and one evening per week, Wednesday or Thursday.

*Duration:* 18 months.

*Examinations:* set internally by the Polytechnic.

### **Part 2 Course**

*Qualifications for entry:* applicants must possess one of the following:

- (a) Polytechnic Diploma in Quantity Surveying Part 1.
- (b) IQS First examination.
- (c) RICS Part 1 examination (QS).
- (d) HNC or HND Building.

*Curriculum:* construction technology, measurement of building work, construction management, building services, economics, contract law and arbitration, estimating and tendering procedure.

*Attendance:* one day and one evening per week, Monday or Tuesday

*Duration:* two years

*Examinations:* set internally by the Polytechnic.

### **Part 3 Course**

*Qualifications for entry:* applicants must possess one of the following:

- (a) Polytechnic Diploma in Quantity Surveying Part 2.
- (b) IQS Second examination (or equivalent exempting qualification)
- (c) RICS Part 2 examination (QS).

*Curriculum:* construction technology and services, measurement of building work civil engineering construction and measurement, construction management, construction contracts and administration, development economics and law, cost control.

*Attendance:* one day and one evening per week, Thursday or Friday.

*Duration:* two years

*Examinations:* set internally by the Polytechnic.

*Transition period:* the Polytechnic Diploma in Quantity Surveying commenced in 176 and is progressively replacing the previous course for the external examinations. In the 1980/81 session, courses for the 1981 Final examination will continue for the external examinations of the IQS and RICS (II).

### **TEC Higher Certificate in Surveying, Cartography and Planning (III)**

Course Tutor Mrs MA MacKeith

A two-year course for Planning Technicians leading to the award of a TEC Higher Certificate and exemption from the Practical Test in the Examinations of the Royal Town Planning Institute.

*Qualifications for Entry:* a TEC Certificate or Diploma in Surveying, Cartography and Planning or any other qualification considered by the Polytechnic and the Technician Education Council to be equivalent.

#### **1st Year**

Tutor Mrs MA MacKeith

*Curriculum:* planning practice, planning law and procedures, mathematics (statistical techniques), planning studio, general studies.

*Attendance:* Tuesday, day and evening

*Examinations:* internal.

#### **2nd Year**

Tutor Mrs MA MacKeith

*Curriculum:* aspects of physical planning, planning law and procedures, mathematics (information

systems), planning studio, general studies.

*Attendance:* Wednesday, day and evening plus a one-week residential course in each session.

*Examinations:* internal, externally assessed

*Qualification:* the TEC Higher Certificate in Planning.

### **TEC Higher Certificate in Civil Engineering Studies (III)**

Course Tutor **B Carter**

A two-year programme for Civil Engineering Technicians, leading to the award of the TEC Higher Certificate in Civil Engineering Studies. This qualification entitles the holder to apply for membership of the Society of Civil Engineering Technicians at the grade of Technician Engineer. The TEC Higher Certificate replaces the Higher National Certificate. Options are available for Structural Engineering and Highway Engineering Technicians.

*Admission and credit:* for a limited period provision will be made for admission of students holding ONC Construction or similar qualifications. Procedures exist for deciding on unusual cases of admission qualifications and credit. Normal admission requirements are possession of a TEC Certificate in Civil Engineering Studies or a Certificate in Building Studies with appropriate pre-requisites.

#### **1st Year**

Tutor **B Carter**

*Curriculum:* essential units are contract administration IV, civil engineering construction IV, geotechnics IV. Optional units meet the requirements of site-based civil engineering technicians, office-based civil and structural engineering technicians and highways technicians.

*Attendance:* Monday, day and evening.

*Examinations:* internal with TEC moderation.

#### **2nd Year**

Tutor **B Carter**

*Curriculum:* essential unit civil engineering construction V., optional units as for 1st year. In addition there is an essential project unit at level V.

*Attendance:* Wednesday, day and evening.

*Examinations:* internal with TEC moderation.

### **Estate Management/General Practice, Building Surveying and Town and Country Planning**

Course Tutor **GS Holden**

Courses for Surveyors in general practice, building or planning in preparation for the examinations of the Royal Institution of Chartered Surveyors.

*Qualifications for entry:* as required by the professional bodies.

### **Part I Course (II)**

*Curriculum:* building construction/construction technology, introduction to valuation, introduction to use and development of land, introduction to law, economics, quantitative studies (statistics and land surveying).

*Attendance:* one day and one evening per week, Wednesday or Thursday.

*Duration:* five terms.

*Examinations:* set externally by the RICS.

### **Part II Course (II)**

*Curriculum:* principles of valuation, town and country planning, law (law of property and arbitration/law of property and building), national and local taxation, building construction, macroland economics, macroeconomics and micro economics/economics and valuations, environmental and design studies.

*Attendance:* one day and one evening per week, Thursday or Friday.

*Duration:* three terms (commencing Summer Term).

*Examinations:* set externally by the RICS.

### **Part III Course (II)**

*Curriculum:* Applied Valuation I, Applied Valuation II, Urban Economics, Maintenance and Management of Buildings, Applied Town and Country Planning, Administrative Law.

*Attendance:* Friday, day and evening.

*Duration:* three terms (commencing Summer Term).

*Examinations:* set externally by the RICS.

## **Evening Courses**

### **Quantity Surveying**

Course Tutor **DM Horsley**

Courses for Quantity Surveyors leading to the professional examinations of The Royal Institution of Chartered Surveyors and the Institute of Quantity Surveyors.

*Curriculum:* certain subjects of the Part 1, Part 2 and Part 3 courses including measurement, services, building economics, law, tenders and estimating.

*Attendance:* one evening per week per subject.

*Examinations:* set externally by the professional bodies.

### **Civil Engineering Law and Contract Procedure (III NP)**

Course Tutor B Carter

A 20-week course on law and contract procedure to suit the needs of members of the Institution of Civil Engineers. In particular, it is aimed at members who wish to qualify for inclusion in the Institute's list of qualified arbitrators by attaining the standard required by the Arbitration Board.

*Curriculum:* English legal system, law of contract, contract administration, arbitration, tort, industrial law.

*Attendance:* Thursday evening.

*Examination:* Institution of Civil Engineers.

### **Higher National Certificate in Building, Supplementary Studies (III)**

Course Tutor SR Cardwell

A course of study for holders of the Higher National Certificate or equivalent in Building to obtain a Certificate of Supplementary Study.

*Curriculum:* building law, economics of industry, building technology I, building regulations, maintenance and adaptation of buildings.

*Attendance:* one session per week per subject.

*Examinations:* internal, externally assessed.

### **Certificate in Site Management Studies (IV)**

Course Tutor WH Davies

A 30-week course to suit the needs of persons with at least two years experience in building site management above trade foreman level. The course prepares students for the Diploma in Site Management Studies and Technician Membership of the IoB. No formal qualifications are required but applicants must be over the age of 25.

*Curriculum:* communications, safety, planning, organisation, industrial relations and productivity techniques.

*Attendance:* two evening per week, Wednesday and Thursday.

*Examinations:* internal – modular.

### **Diploma in Site Management Studies (III NP)**

Course Tutor WH Davies

A 30-week course to suit the needs of holders of the Certificate in Site Management Studies leading to eligibility for Licentiate Membership of the Institute of Building.

*Attendance:* two evenings per week, Tuesday and Wednesday.  
*Examinations:* internal – modular.

### **Estate Management and General Practice Surveying**

Course Tutor **GS Holden**

Courses for the Royal Institution of Chartered Surveyors.

*Curriculum:* certain subjects of the Part 1, Part 2 and Final courses including valuations, law, economics, town planning, construction and surveying.

*Attendance:* one evening per week per subject.

*Examinations:* set externally by the professional bodies.

## **Special Courses**

### **Royal Town Planning Institute First Professional Examination**

Course Tutor **Mrs MA MacKeith**

A 16-week tutorial course to prepare students for the first Professional Examination of The Royal Town Planning Institute.

*Curriculum:* society, the physical environment, development.

*Attendance:* one half day per week.

*Examination:* students will normally take the RTPI First Professional Examinations on completion of one tutorial course.

### **Royal Town Planning Institute Final Examination**

Course Tutor **Mrs MA MacKeith**

A 16-week tutorial course to prepare graduates and others qualified to enter the RTPI Final Examinations.

*Curriculum:* required topics from the RTPI syllabus.

*Attendance:* one half day per week.

*Examinations:* students will expect to take each part of the RTPI Final Examinations after one full tutorial course.

# School of Electrical and Electronic Engineering

Head of School A Palmer BSc Tech, CEng, MIEE

## Part Time Courses

Course Leader T Wilson

### **Engineers' Registration Board**

The Board comprises three separate autonomous sections: Chartered Engineers, Technician Engineers, and Technicians and derives its authority from a Royal Charter granted by the Privy Council to the Council of Engineering Institutions.

The purpose of the Board is to create a national register for all classes of professional engineering staff. This register has government support and will ultimately provide a national and international standard of reference for engineering personnel. Under the powers of its Royal Charter, the Board is empowered to award designatory letters and these are: CEng; TEng(CEI); Tech(CEI).

### **Corporate Membership of the Professional Institutions**

The Council of Engineering Institutions representing fifteen Institutions, including the Institution of Electrical Engineers and the Institution of Electronic and Radio Engineers was established in 1966 and holds the sole authority to confer the title 'Chartered Engineer' on members of the profession.

In order to attain the status 'Chartered Engineer' it is necessary for a candidate to either pass or obtain exemption from the Parts 1 and 2 Examinations set by the Council. A Higher National Certificate in Electrical and Electronic Engineering with three supplementary study subjects gives exemption from Part 1. The Council of Engineering Institutions Part 2 Examinations course is not offered on a part-time basis and those interested should consult the full-time prospectus.

### **Institution of Electrical and Electronics Technician Engineers Society of Electronic and Radio Technicians**

Corporate membership of the above societies enables members to obtain the status 'TEng(CEI)' or 'Tech(CEI)'. Full details of membership requirements can be obtained from SERT, Faraday House, 8-10 Charing Cross Road, London WC2H 0HP, IEETE, 2 Savoy Hill, London WC2R 0BS.

### **Technician Education Council (TEC)**

From September, 1979, Higher National Certificate and City & Guilds Technician courses are being replaced by the Higher Certificate of the Technician Education Council (TEC). Generally, only the later years of the superseded courses will be available. Students should seek advice at enrolment as to the availability of the initial year of a superseded course.

### **BSc in Electrical and Electronic Engineering of the Council for National Academic Awards (II)**

Course Leader Dr PM McEwan

A four-year part-time degree course with a strong emphasis on control systems and logic and electronics, with specialist topics in digital systems and communication or power supply systems.

The course comprises 35 weeks per year spread over three academic terms; the attendance each week being one full day and one separate evening.

*Qualifications for entry:* normally mature students with a minimum of two years industrial experience holding an HND or good HNC in Electrical and Electronic Engineering; the assessed technical and mathematics HNC subjects to be credit level passes. Exceptional entry into the second year of the course is permissible for students possessing a good HND.

### **1st Year**

Tutor RO Hall

*Curriculum:* electrical science, physical science, logic and electronics, mathematics.

*Attendance:* could be adjusted to accommodate to the needs of firms but will probably be Wednesday evening and all day Friday.

### **2nd Year**

*Curriculum:* electromagnetism and circuit theory, physics, logic and electronics, mathematics, related studies.

### **3rd Year**

*Curriculum:* electromagnetism and circuit theory, instrumentation and control, logic and electronics, energy conversion, related studies.

### **4th Year**

Tutor Dr FM McKenna

*Curriculum:* control engineering, analogue and digital systems, electromagnetism and circuit theory, communications or power supply systems, project work.

*Examinations:* internal, with external examiners.

*Qualification:* successful completion of the course results in the award of a Bachelor of Science Degree in Electrical and Electronic Engineering.

## **Higher National Certificate in Electrical and Electronic Engineering (III)**

Course Tutor WS Kirkpatrick

A two-year course leading to the award of the Higher National Certificate in Electrical and Electronic Engineering. Students are offered either a power or an electronics specialisation.

*Qualifications for entry:* successful completion of the first year of course.

### **2nd Year**

*Curriculum:* electrical and electronic principles, and two subjects selected from electronic engineering, electrical power, utilisation of electrical energy, communication engineering, control systems, computer engineering, mathematics.

*Attendance:* probably all day Tuesday and one evening.

*Examinations:* internal, externally assessed.

*Qualification:* Higher National Certificate in Electrical and Electronic Engineering.

*Course:*

*Examinations:*

### **Supplementary Studies to the Higher National Certificate in Electrical and Electronic Engineering (III)**

Students who hold the Higher National Certificate may undertake supplementary studies in specialised topics. The holder of a Higher National Certificate in Electrical and Electronic Engineering with three supplementary study subjects is, at the discretion of his constituent Institution, eligible to sit the Part 2 Examinations of the Council of Engineering Institutions, success in which will satisfy the academic requirements for election as an Associate Member of the Institution of Electrical Engineers or Graduate Member of the Institution of Electronic and Radio Engineers.

Up to three supplementary study subjects may be studied over a period of one or more years. Subjects offered are electronic engineering, control systems, communication engineering, mathematics, electrical power, computer engineering, utilisation of electrical energy.

*Attendance:* one day and one evening.

*Examinations:* internal, externally assessed.

*Qualification:* Supplementary Study Certificate to the Higher National Certificate in Electrical and Electronic Engineering.

*Course:*

*Examinations:*

### **TEC Higher Certificate in Electronics or in Electrical Engineering (III)**

Course Tutors TH Cowperthwaite  
RG Preston

The programmes of study offered consist of a number of combinations each comprising 10 units which are *either* analytically *or* vocationally biased and offer specialisations in electronics, industrial electric power equipment and utilisation of electrical energy.

For the award of a Higher Certificate in Electronics or in Electrical Engineering, passes in 10 units in an appropriate combination are required and normally the programme of study will be arranged over two years with attendance on one day and one evening per week.

Further information on TEC courses is given on page 68.

*Qualifications for entry:* an appropriate TEC Certificate or Diploma or an approved equivalent qualification.

#### **1st Year**

*Curriculum:* units include mathematics, electrical and electronic principles, control system and electronics or industrial electrical power equipment.

*Attendance:* analytical group – all day Wednesday and one evening; vocational group – all day Thursday and one evening.

*Assessment/Examinations:* based on in-course assessment, course work and examinations associated with each unit, internally set, and externally moderated.

## **2nd Year**

*Curriculum:* units will be chosen from mathematics, electrical and electronic principles, instrumentation and measurement techniques, electronics, digital electronics, power electronics, control systems, sound and television techniques, communication systems, industrial electrical power equipment, utilisation of electrical energy, industrial studies.

*Attendance:* analytical group – all day Thursday and one evening; vocational group – probably all day Monday and one evening.

*Assessment/Examinations:* based on in-course assessment, course work examinations associated with each unit, internally set with external moderation.

*Qualification:* TEC Higher Certificate in Electronics or TEC Higher Certificate in Electrical Engineering.

### **TEC Higher Certificate in Aerospace Studies: Avionics (III)**

(operated in conjunction with the WR Tuson College, Preston)

Course Tutors    **T Wilson (Preston Polytechnic),  
PG Evans (WR Tuson College).**

The programme consists of two combinations each comprising 10 units, which are designed for technician apprentices and craft apprentices.

For the award of a Higher Certificate in Aerospace Studies – Avionics, passes in 10 units in an appropriate combination are required and normally the programme of study will be arranged over 2 years with attendance on one day and one evening per week.

*Qualification for entry:* an appropriate TEC Certificate or Diploma or an approved equivalent qualification.

## **1st Year**

*Curriculum:* mathematics, electrical principles, electronics principles, design, development and manufacture of aircraft, avionics (radio and control systems), aeronautics and avionics.

*Attendance:* all day Thursday and one evening.

*Assessment/Examination:* in-course assessment, course work and examinations associated with each unit, internally assessed, externally moderated.

## **2nd Year**

*Curriculum:* avionics, electronics principles, instrumentation and measurement techniques, quality and reliability in aerospace studies, project.

*Attendance:* probably all day Monday and one evening.

*Assessment/Examination:* based on in-course assessment, course work and examinations, internally set with external moderation.

*Qualification:* TEC Higher Certificate in Aerospace Studies – Avionics.

## **Radio, Television and Electronics Mechanics' Certificate Part III (IIINP)**

Course Tutor RG Preston

A course for mechanics who have already completed Parts I and II of a Radio, Television and Electronics Mechanics' Certificate, and who possess the Radio, Television and Electronics Mechanics' Parts I and II Certificates. The Part III subjects are studied during the two years, and a Radio, Television and Electronics Mechanics Part III Certificate is awarded for successful completion of each subject. For students who have still to obtain the Part I and/or Part II Certificates, a course of study is available at the WR Tuson College.

*Qualifications for entry:* a Radio, Television and Electronics Mechanics' Part II Certificate or equivalent.

### **Part III**

#### **1st Year**

*Curriculum:* television (colour and monochrome) theory and practical work.

*Attendance:* Monday morning.

#### **2nd Year**

*Curriculum:* additional television (colour and monochrome), theory and practical work.

*Attendance:* Monday afternoon

*Examinations:* CGLI 222

*Qualification:* City and Guilds of London Institute's Radio, Television and Electronic Mechanics' Part III Certificate in Television (colour and monochrome) and/or Additional Television (colour and monochrome).

## **Evening Courses**

### **HNC in Engineering**

The School does not offer an evening-only course leading to the Higher National Certificate in Engineering. A clearing house will be in operation in the Region in respect of enrolments for the 1980/81 session, and intending students are advised *either* to consult the Head of School, who will be able to advise concerning the centres at which they are available, *or* to apply to the Secretary, North Western Regional Advisory Council for Further Education, Town Hall, Walkden Road, Worsley. Telephone 061-702 8700 for information.

### **Supplementary Studies to the Higher National Certificate in Electrical and Electronic Engineering (III)**

Course Tutor WS Kirkpatrick

Students who hold the Higher National Certificate may undertake supplementary studies in specialised topics. The holder of a Higher National Certificate in Electrical and Electronic

Engineering with three supplementary study subjects is, at the discretion of his constituent Institution, eligible to sit the Part 2 Examinations of the Council of Engineering Institutions, success in which will satisfy the academic requirements for election as an Associate Member of the Institution of Electrical Engineers or Graduate Member of the Institution of Electronic and Radio Engineers. Up to three supplementary study subjects may be studied over a period of one or more years. Subjects offered are electronic engineering, control systems, communication engineering, mathematics, electrical power, computer engineering, utilisation of electrical energy.

*Attendance:* from one to three evenings per week.

*Examinations:* internal, externally assessed.

*Qualification:* Supplementary Study Certificate to the Higher National Certificate in Electrical and Electronic Engineering.

## Special Courses

These courses are held on one day or one evening per week and deal with topics which are relevant to the needs of local industry. A programme for each specialised course is usually available in advance. Courses already proposed for the current session are:

**'A' level Electronics for Teachers** – to be held in the Spring term

**'Microprocessors and their Applications'** – a range of courses on these topics will be offered during the 1980/81 session. Attendance is on one day or one evening per week. A leaflet giving full details is available from the Educational Liaison Officer.

# School of Mechanical and Production Engineering

Head of School DM Clapp BSc (Eng), PhD, CEng, FIMechE

## Short Full Time Course

### **Polytechnic Certificate of Advanced Studies in Design and Manufacture (IIINP)**

Course Leader Dr MG Hodskinson

A full-time course is offered to provide graduates, of various disciplines, who have little or no practical training with an accelerated appreciation course of many of the areas of design and production practice. The course meets the recommendations of the Engineering Industry Training Board in their booklet No. 5 'The Training of Professional Engineers', and provides part of the graduate experience necessary for Corporate membership of the Institutions of Mechanical and Production Engineers.

A project design and manufacture forms an important part of the course since it provides an opportunity for the graduate to apply the knowledge gained, in supporting academic study, of design and manufacturing processes to a 'real' situation and to experience many of the pressures of the industrial environment.

The course is offered in two forms. The full course is 22 weeks but a shortened variant is available which omits most of the Engineering Practice Part 1. Successful completion of academic requirements leads to the award of a Polytechnic Certificate of Advanced Studies. Further details may be obtained from the Course Leader.

*Qualifications for entry:* A student must have an academic background equivalent to that required by the Professional Institutions for Graduate membership (normally a degree of a University or Polytechnic) and, (i) be seeking a career in an engineering industry, (ii) be sponsored by his employer. Employees sponsoring students may be eligible for EITB grants, as part of a recognised training scheme.

## Part Time Courses

Course Leaders BSc in Production Engineering: JR Smith  
TEC Courses: G Podmore  
HNC Course: JE Meadows

### **BSc in Production Engineering (II)**

This course is of four years duration and is intended for mature students, most of whom are expected to be employed in industry. It provides exemption from Parts I and II of the CEI requirements for membership of the Institution of Production Engineers.

*Qualifications for entry:* a good HNC in Mechanical Engineering, Production Engineering or Engineering. Candidates with an HND may be offered exemption from the first year of the course.

*Curriculum:* the first year of the course provides a sound basic knowledge of Engineering and a preparation for subsequent studies of Production Engineering. Three parallel aspects of Production Engineering are considered during the second, third and fourth years. These are: (a) Product based studies which include materials technology, designing for production and process analysis, (b) The

Manufacturing System which includes production management, production systems and machine-tool studies, (c) The Manufacturing Environment which includes behavioural, economic, financial and industrial relations studies.

A final-year subject, Integrating Studies, is also provided, which brings together previously studied techniques and knowledge, together with new material, to illustrate their inter-relationships and further application and relevance to industrial situations. Assessment and teaching of this subject will be by means of several assignments and a project.

*Attendance:* one full day (including evening) and one additional evening per week.

### **1st Year**

Tutor R Hatton

*Curriculum:* mathematics I, engineering science, materials technology I, product technology, communications, experimental studies.

*Attendance:* all day Wednesday and Monday evening

*Examinations:* end of session theory papers

### **2nd Year**

Tutor JA Burton

*Curriculum:* mathematics II, systems and dynamics I, materials technology II, mechanics of materials, behavioural and financial studies I, experimental studies.

*Attendance:* all day Monday and Wednesday evening

*Examinations:* end of session theory papers

### **3rd Year**

Tutor JR Smith

*Curriculum:* production management I, systems and dynamics II, designing for production, process analysis I, behavioural and financial studies II, experimental studies.

*Attendance:* all day Thursday and Tuesday evening

*Examination:* end of session theory papers

### **4th Year**

Tutor A Murray

*Curriculum:* production management II, production systems, process analysis II, behavioural and financial studies III, integrating studies.

*Attendance:* all day Tuesday and Thursday evening

*Examinations:* end of session theory papers and Assignment Report

*Qualification:* Bachelor of Science degree in Production Engineering awarded by the course for National Academic Awards.

## Higher National Certificate in Engineering (III)

Course Tutor K Bennett

This course will have a first year intake limited to students who have completed an appropriate bridging programme from the Mechanical Engineering Technicians Course (CGLI 255). For convenience the subject matter is divided between the two years, but there is no intermediate qualifying examination as such. Continuous assessment will occur throughout the course. Students finding difficulty with the course during the first year may transfer to one more suited to their needs. Arrangements are made to ensure that students are aware of their progress, and the Course Tutor will advise those who appear likely to profit from a transfer.

*Qualifications for entry:* CGLI Full Technological Certificate (provided that extra studies have been undertaken in mathematics and mechanical technology).

### 1st Year

*Curriculum:* mathematics, general studies, mechanical technology, engineering measurements, properties and forming of materials.

*Attendance:* all day Friday and Thursday evening.

*Examinations:* continuous assessment.

### 2nd Year

*Curriculum:* mechanical technology, engineering communications, manufacturing technology, properties of materials, together with one elective subject taken from power plants, dynamics, engineering design, designing for production, methods engineering and quality engineering.

*Attendance:* all day Wednesday and Wednesday evening.

*Examinations:* internal, externally assessed.

*Qualification:* the Higher National Certificate in Engineering.

## Higher National Certificate in Engineering, Endorsement Subjects (III)

Course Tutor K Bennett

*Curriculum:* subjects selected from those not taken in the second year together with any of the following: engineering management, engineering work study, advanced engineering design materials technology, computer studies, electronics for mechanical engineering technicians (subject to sufficient demand).

In addition, a number of Aeronautical Technology Subjects may be offered in conjunction with Blackpool College of Technology & Art.

*Examinations:* internal, externally assessed.

*Qualification:* Endorsement to Higher National Certificate in Engineering.

## TEC Higher Certificate in Mechanical and Production Engineering (III)

Course Tutor G Podmore

The integrated course scheme incorporates programmes in mechanical engineering, mechanical and production engineering, production engineering, and aircraft production. It should be appreciated that student numbers may be such as to limit the range of programmes offered each year. All students will be counselled prior to entry to the course and a decision on the most appropriate programme to be followed will be taken in view of the student's qualification and career interest. Continuous internal assessment will occur throughout each unit of study and on completion of the unit, students will be awarded a pass with merit, a pass, or a fail. On passing the appropriate number of units, students will be eligible for the award of a TEC Higher Certificate. Further information on TEC courses is given on page 67.

*Qualifications for entry:* (a) a TEC Certificate or Diploma in Engineering, or (b) an Ordinary National Certificate or Diploma in Engineering, or (c) GCE passes in five subjects, two of which must be mathematics and physics (or engineering science), one of these two having been passed at Advanced level and the other having been studied to the same level, or (d) a Mechanical Engineering Technicians Certificate Parts I and II (CGLI Course No 293), or (e) other qualifications deemed equivalent.

### 1st and 2nd Years

*Curriculum:* Students will select appropriate units in accordance with their agreed programme of studies.

All programmes contain appropriate units of mathematics, science, materials, industrial studies and project work. Other units will vary with the requirements of the programme and the subject areas of the units which may be selected include: thermomechanics of fluids, engineering design, manufacturing technology, aircraft systems, aircraft structures, aircraft manufacturing technology, electrical science, control, instrumentation and control, hydraulic and pneumatic control, engineering management techniques, design for manufacture, statistical quality control, n.c. technology, jig and tool design.

*Attendance:* first year, all day Wednesday and one evening per week, second year, provisionally all day Thursday and one evening per week.

*Examinations:* externally moderated; the set of assessments associated with each unit.

*Qualification:* TEC Higher Certificate in: Mechanical Engineering or Mechanical and Production Engineering or Production Engineering or Aircraft Production.

### Special Courses

Courses on the following subjects will be held in the autumn and spring terms and details can be obtained from the School of Mechanical & Production Engineering office:

Abrasive Wheel Regulations,

Interactive Computer Graphics,

Design of Production Systems,

Oil Hydraulic Power,

Numerical Control:

Pneumatic Power Systems,

Introductory,

Strength of Materials.

Computer Aided Programming,

Organisation and Economics.

## Technological Collaboration

The subject divisions within the Faculty of Science & Technology welcome collaboration with industry. A summary of some of the facilities available are described briefly.

### **Chemistry and Biology**

The equipment in the research laboratories includes instruments for infra-red, ultra-violet, visible, nuclear magnetic resonance, and atomic absorption spectroscopy, gas chromatography, a variety of radiochemical and electrochemical equipment, a refrigerated high-speed centrifuge, direct-reading Warburg apparatus, an amino-acid autoanalyser, electro-physiology recording assemblies, sterilisation and incubation facilities, a fluorescence microscope equipped for photomicrography, an ultramicrotome, an electron microscope and an animal house.

### **Physics and Astronomy**

There are a wide range of items of advanced teaching and research equipment including an electron microscope, general electronic equipment, spectrographs, measuring devices, photographic and radiographic equipment, cryostats, high-vacuum equipment, acoustic devices, ultrasonic and non-destructive testing equipment and microwave apparatus. Subject to availability the equipment may be used by qualified technologists. Training courses on special techniques will be given as required.

The Polytechnic facilities for astronomy and meteorology include a meteorological station and two observatories. Facilities available to students include a 20cm refractor, an 8cm reversible transit instrument, and a 39cm astrograph. there is a wide range of supporting equipment.

### **Mathematics, Statistics and Computing**

The Division has laboratories with specialist equipment for use in statistics and numerical analysis. In addition, a wide range of computing facilities exist within the Polytechnic. Short courses in Mathematical Methods, Computing and Statistics can be arranged for local industrial firms to meet their specific requirements, and consultancy work in all fields of mathematical science is encouraged.

### **Electrical and Electronic Engineering**

Has separate well-equipped laboratories for experimentation in instrumentation and measurements, electronics and communications, electrical machines and power, control, computers and high voltage. Equipment available includes a PDP 8/E control computer, an EAL 380 analogue computer, time and frequency domain analysis equipment and 500kV high-voltage test equipment.

### **Mechanical and Production Engineering**

The laboratories house equipment suitable for test and development work in connection with materials testing, stress analysis, fluid mechanics, applied thermodynamics, control and vibration, metrology and machine tool technology. These facilities are offered to industrial organisations and have in the past contributed usefully to the solution of their technical problems. The Polytechnic is a member of the Department of Industry's 'Interlab' scheme.

Facilities exist for the preparation of tapes for numerically controlled machine tools, which can be verified using computer graphics in association with the Polytechnic PRIME computer system. Tapes can also be proved and components manufactured on a Marwin Modula 2-Axis NC machine.

There is an active interest in applied research and many staff are involved in projects for local industry and, in collaboration with universities or the Council for National Academic Awards, for the award of higher degrees. Much of this work lies in the field of production engineering.

### Construction and Urban Studies

Testing work is done for the associated industry and staff encourage discussion on areas of collaboration.

Typical subjects might include concrete and soils testing, land surveying, quantity surveying, construction management, building services engineering and town planning.

## Technician Education Council Courses

The Technician Education Council (TEC) was established in March 1973, essentially to rationalise existing technician education provision. Courses in the TEC framework will include ONC/D and HNC/D courses of Joint Committees and CGLI courses leading to Certificate, Diploma, Higher Certificate and Higher Diploma qualifications.

The Polytechnic will only be offering Higher Certificate and Higher Diploma courses leading to TEC Awards. The minimum entry requirements for these courses are

- i the relevant Certificate or Diploma, with supplementary studies if necessary, *or*
- ii students to GCE Advanced level and a pass in at least *one* relevant subject at that level *or*
- iii an attainment equivalent to the above.

Polytechnic Higher Certificate and Diploma courses will ultimately be structured on a Unit basis although during the interim introductory phase some courses may be of a conventional structure. Higher Certificate and Diploma programmes may contain Level II, III, IV and V course units. The concept of level of a unit is based on prerequisites and depends on the 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 completion of each unit, students will be given a grading which will be:— Pass with Merit, or Pass, or Fail. Students who achieve the appropriate number of passes will be awarded either a Higher Certificate or a Higher Diploma.

Since each course contains a number of units which offer opportunities for optional studies a Higher Certificate or Higher Diploma course might be better described as a course complex embracing a number of programmes of study. Among the programmes of study within Higher Certificate course complexes will be programmes appropriate for students with academic facility and interests and who would have opted for HNC courses prior to TEC rationalisation. There will also be programmes appropriate for the student with practical facility and interests who would have opted for CGLI courses. The unit structure enables programmes to be devised which could meet specific industrial needs. It is, therefore, in the student's interest to consult his employer before seeking enrolment.

The Higher Certificate programme will comprise a minimum of ten units and consist of approximately 600 hours of part-time study in the Polytechnic for the average student. The combination of 60 hour units will reflect 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 Diploma programmes will vary according to the aims of the course. Programmes providing a suitable education for senior technicians will normally comprise 1200-1500 hours of study. Programmes designed for students aiming to transfer to degree or professional courses may involve more than 1500 hours of study in the Polytechnic. The mode of study will be full-time/sandwich or part-time. The latter mode of study will offer an opportunity for the student with a Higher Certificate to continue part-time studies for a Higher Diploma. The composition of a Higher Diploma programme comprising 20 units each of 60 hours (1200 hours total) would be:

Minimum number of units in a programme	20
Minimum number of units at Level 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

The latest information about particular TEC Higher Courses which are now being developed in the Polytechnic may be obtained from the Head of School named in this prospectus.

## Faculty of Social Studies and Humanities

Dean of Faculty    **Professor M North MSc(Econ), PhD**

### **Social Studies**

Courses in social sciences are conducted and include degree, diploma and certificate courses in Applied Social Studies, Social Work and Health Visiting. At the present time the bulk of the work is carried out in Livesey House, a four-storey block adjacent to the main campus, in which are to be found general and specially equipped lecture and tutorial rooms, study rooms, a common-room with coffee bar, and academic and secretarial staffrooms.

Many of the courses offered at present lead to professional status, and consequently students spend an appreciable amount of time in practical work placements in Social Work Agencies, Schools, Social Service Departments, etc. Strong links have been forged with education and social service authorities and training officers in industry and commerce, who together seek places on our courses for their staff and provide career opportunities for many of our students. Staff carry out research projects which are closely linked with the teaching undertaken by them which is of benefit both to students on our courses and local industrial, commercial and social enterprises.

### **Humanities**

The School offers a wide range of courses for full-time students on diploma courses, and on a part-time basis with special relevance to the needs of teachers and of industry. Professional courses are offered in Journalism, and secretarial and language skills are developed together in courses for personal assistants and bi-lingual secretaries.

The BA (Hons) Humanities course contains options in English, French, Linguistics, History, Geography, Politics, Economics and Education Studies.

## Part Time Course

### Health Visitor's Certificate (III)

Course Leader Miss MM Poyser

Course Tutors Miss GMM Kneer  
Mrs P Kilgallen  
Mrs K Fowler  
Mrs K Hill

A two-year part-time course involving parts of three days per week of combined theoretical and practical training leading to the award of a Certificate in Health Visiting by the Council for Education and Training of Health Visitors.

*Qualifications for entry:* candidates must be State Registered Nurses with approved midwifery experience and possess in addition (a) five GCE subjects at 'O' level, or (b) other approved educational qualifications, and/or (c) satisfy the Council as to their educational fitness for the course by means of an Entrance Test.

*Examinations:* divided between the two years, internal, externally assessed, and written Environmental and Health Visiting Studies. Periodic assessment is maintained throughout the course.

*Qualification:* the Health Visitor's Certificate.

## School of Language and Humanities

Head of School HE Probyn BA, MPhil

### Block Release Courses

#### **Certificate of the National Council for the Training of Journalists (III NP)**

Course Leader E Newell

In conjunction with the National Council for the Training of Journalists, block release courses are arranged in preparation for the Council's Proficiency Test which takes place at the end of a student's apprenticeship in the newspaper industry.

*Qualifications for entry:* students must have reached the age of 16 and must produce evidence of a good general education. At the end of each year of the course students must take an examination in each subject.

The regulations require a student to obtain a shorthand certificate at 100 wpm before taking the Proficiency Test.

Each course will include eight weeks' full-time study from 9.00am. on Mondays to 4.00 pm. on Fridays.

#### **1st Year**

Tutor J Hudson

*Curriculum:* use of language, newspaper practice, shorthand, public administration, current affairs.

*Examinations:* internal

#### **2nd Year**

Tutor AC Roylance

*Curriculum:* use of language, public administration, newspaper practice, shorthand, newspaper law.

*Examinations:* internal and external

A copy of the explanatory leaflet summarising the training scheme and giving the regulations for admission can be obtained from the Director, The National Council for the Training of Journalists, Harp House, 179 High Street, Epping, Essex. (Tel 0378-2395).

## Part Time Courses

### **Institute of Linguists Intermediate and Final Diplomas (Inter: IINP. Final: II)**

Course Leader AG Weymouth

These are advanced courses in modern languages and offer students a challenging and stimulating programme leading to the examinations of the Institute of Linguists. The common feature of these courses is the emphasis which is placed on a high level of fluency in the target language together with a sound knowledge of the social, political and economic structure of the country itself. The Final Diploma has graduate status in teaching as well as in other professions. Languages offered are French, German, Italian, Spanish, Russian and English.

*Qualification for entry:* a good standard in the language which approximates 'A' level (Inter) or evidence of two or more years post 'A' level study (Final) on the course does not necessarily entail taking the examination at the end of the year.

*Attendance:* Intermediate. English—Wednesday 5.30-7.30 p.m.; French—Tuesday 6-8.30 p.m.; German—Tuesday 6-9 p.m. and Wednesday 6-8.30 p.m.; Italian—Thursday 6-8.30 p.m.; Russian—Wednesday 6-8.30 p.m.; Spanish—Thursday 6-8.30 p.m.

*Final.* English—Wednesday 5.30-7.30 p.m.; French—Thursday 2-7 p.m.; German—Tuesday 2-7 p.m.; Italian—Thursday 6-8.30 p.m.; Russian—Wednesday 6-8.30 p.m.; Spanish—Thursday 6-8.30 p.m.

Lancashire County Council will normally support applications from teachers wishing to attend these courses and, subject to headmasters' approval, will consider half-day release.

*Examinations:* These are held twice yearly, in December and June. Non-graduate language teachers may take the Final paper after one year.

### **Special Courses in Foreign Languages for Industry**

Throughout the session, the School will run intensive short courses in languages to suit the requirements of particular industries. The courses are at beginner or advanced levels in French, German, Spanish and Russian. They can be held either in the evening or during the day and normally consist of 34 two-hour lectures.

These courses will be arranged according to demand and firms or individuals are invited to write to Mr David Swift.

### **B.Mus. (London) (II)**

Course Leader Miss J Burke

A part-time evening course extending over three to five years leading to the external music degree of London University. There may be exemption from part of the course for those with certain qualifications.

*Qualifications for entry:* A statement of eligibility must be obtained from London University before applicants can be interviewed.

*Attendance:* Two evenings per week.

*Curriculum and examinations:* As laid down by London University.

### **Diploma in Music course (IIINP)**

Course Leader **Miss J Burke**

A two-year, part-time evening course for musicians who wish to study for one of the following external diplomas – ARCM, LRAM, LTCL, LGSM and AMus TCL. The course covers both practical and theoretical work.

*Qualifications for entry:* Students should have reached a practical standard of about Grade VII to VIII (Ass.Bd.) or equivalent.

*Attendance:* One evening per week and instrumental tuition at another mutually agreed time.

*Curriculum and examinations:* As laid down in the prospectuses of the diplomas named above.

Those interested in further information about the diploma or degree courses, or plans for future courses in music, should write to: Miss J Burke, Preston Polytechnic – Robin House, Fylde Street, Preston PR1 7DP.

## School of Education

Dean of School **AB Butterworth MEd, DipEd, NFF.**  
(based at the Poulton-le-Fylde Campus)

Senior Tutor, In-Service Courses: **TD Cook BA, MLitt, FCP**  
(Chorley Campus)

The Polytechnic School of Education was established in 1975, when the Colleges of Education at Poulton-le-Fylde (near Blackpool) and Chorley merged with the Polytechnic to form the enlarged Preston Polytechnic.

Following the Secretary of State's decision to end initial teacher education in the Polytechnic the last group of students began their course in 1977 and will enter teaching by 1981. However, the Polytechnic will remain a major provider of courses and services at all levels for serving teachers. The major part of the in-service programme for teachers will be at the Chorley Campus, although some in-service courses are offered at Preston and at Poulton-le-Fylde. The Chorley Campus occupies the buildings of the former Chorley College of Education and is ideally sited for easy access by teachers.

### Part-time Courses

#### Chorley Campus

**Bachelor of Education Degree** available *either* in (a) Subject Study & Education *or* (b) Education alone.

**Post Graduate Certificate in Education** – two years study leading to an award of the University of Lancaster.

#### Diploma in Mathematical Education of the Mathematical Association

A two-year part-time course is available in which the emphasis will be on mathematics in the Primary School but the course may also be of interest to some Secondary teachers, particularly those concerned with remedial work.

**Associateship of the Drama Board (Education)** – four terms duration leading to the award of ADB (Ed).

**Polytechnic Certificate of Advanced studies – Assessment and Guidance in Education** – one year part-time.

**Polytechnic/LEA Short Courses** – these courses based on a number (usually 6 to 10) of evening sessions are available, covering a wide range of topics. Full details are available from the Campus.

### **Poulton-le-Fylde Campus (Nr. Blackpool)**

#### **Bachelor of Education Degree**

It is hoped that parts of the In-Service BEd(Hons) programme will be available at Poulton-le-Fylde. Full details may be obtained from the Campus.

#### **Diploma in Mathematical Education of the Mathematical Association**

A two-year part-time course is available in which the emphasis will be on mathematics in the Primary school but the course may also be of interest to some Secondary teachers, particularly those concerned with remedial work.

**Polytechnic Certificate in the Teaching of Mathematics (11-16)** one year part-time, day-release - one day per week.

**Polytechnic/LEA Short Courses will be available, covering a number of topics.**

### **Preston Campus**

**Advanced Certificate:** Computer Education. A two-year part-time course leading to the above award of the University of Lancaster.

**Polytechnic/LEA Short Courses** will be available covering a number of topics.

For further details about any of the courses or for a copy of the Handbook of Courses which contains information about the whole programme contact the School of Education at either:

In Service Courses, Admissions Office, Preston Polytechnic School of Education, Chorley Campus, Union Street, Chorley, Lancs. (Tel. Chorley 5811). *or*

In Service Courses, Admissions Office, Preston Polytechnic School of Education, Poulton-le-Fylde Campus, Breck Road, Poulton-le-Fylde, Lancs. FY6 7AW (Tel. Poulton-le-Fylde 884651). *or*

The Education Liaison Officer, Preston Polytechnic, Corporation Street, Preston PR1 2TQ (Tel. Preston 51831 Ext. 245).

## The Library and Learning Resources Service

Librarian JR Edgar MA, FLA

It is a feature of higher education that students are required to develop habits of independent learning; greater emphasis is placed on the student working on his/her own, reading the literature on his/her subject with an alert and critical mind. The Polytechnic has therefore developed an up-to-date Library and Learning Resources Service (LLRS) which aims to provide a dynamic user-oriented service rather than one which merely acts as a collector and organiser of materials.

Nowadays information and ideas of direct relevance and interest to the students and staff of the Polytechnic are published not only in the traditional way (books and journals), but also in a diverse range of other forms, including audio and video tapes, slides, records, films, etc. These and other media are being added to stock in increasing numbers in response to the educational and research needs of the users of the LLRS.

There are four libraries serving the needs of the Polytechnic. The Preston Campus Library is located in St. Peter's Square, alongside the Polytechnic Arts Centre and the Students' Union. Science, Technology, the Social Sciences, Economics, Business Studies, Management, Law, and Art are well represented in the stock. The valuable collection of the Preston Incorporated Law Society has been deposited with the Polytechnic and is housed in this Library. A small library specialising in Fine Art is maintained in the Storey Institute, Lancaster, to cater for the needs of Art Students attending courses based there. There are also libraries at both Chorley and Poulton-le-Fylde Campus. The Chorley Campus Library supports the In-service Education Unit, and the Poulton Campus Library the BEd and BA Humanities degrees.

The new LLRS building, opened during the 1978/9 session, has three floors, seats for 688 readers and a capacity for nearly  $\frac{1}{4}$  million volumes. Specialised accommodation includes tutorial and audio-visual facilities and a large number of study carrels have been provided. The book-stock of the LLRS, amounting to 230,000 volumes, 2,300 current periodical titles and 85,000 audio-visual items is supplemented by co-operative arrangements with other local libraries, and by access to the national inter-library loan network via the North West Regional Library Bureau and the British Library Lending Division at Boston Spa, Yorkshire.

Preston is particularly well provided with public libraries. The headquarters of Lancashire Libraries with its Technical Information Centre, large non-fiction lending collection and music and drama library, is located in Corporation Street, just a few hundred yards from the main Polytechnic Campus. The former Harris Library (now the Preston District Central Library) is also administered by Lancashire Libraries and house large fiction and non-fiction lending collections, a reference library and a record-lending library.

## Computing Services Unit

Head of Computing **DW Walsh BSc, MSc, MBCS**

General purpose computing facilities are centralised within the Polytechnic and are available to all sections of the establishment for teaching, research and administration. The Computing Unit is responsible for these resources and provides facilities for a wide range of uses.

Computers have a profound effect on the workings of modern industry, government, commerce and the professions. Traditional activities in these areas have been radically altered by the introduction of automated techniques and many recently qualified people will become involved in some way with these machines during their working lives. Consequently Computing is taught, where relevant, on advanced courses and students are encouraged to apply computing methods to investigate situations in their main subjects. The Computing Unit seeks to provide an effective and interesting environment in which computing machinery may be used as an integral part of a student's education. Staff are available to advise and assist users to prepare data and programs so that the operational procedures may be simplified as much as possible. In addition, seminars and short courses on various computing matters are provided from time to time as appropriate.

At the present time (Winter 1979), computing facilities are based on two machines, a general purpose ICL 2904 machine and a specialist multi-access PRIME computer supporting up to 24 terminals concurrently. However, plans are at an advanced stage to enhance these machines and with the approval of the Education Committee it is expected that extensive additional multi-access facilities will become available during 1980 and will support a wide range of programming languages, graphics facilities and applications packages.

As a fundamental part of the development of computing services, the Polytechnic has converted a large central area into a Computer Suite, comprising a new computer room, user laboratories and support services.

Computer facilities are available to all members of the Polytechnic and some facilities can be extended subject to certain limitations, to other educational institutions, business concerns, government organisations and members of the public.

The Unit remains open during term times Monday to Thursday 9.00 a.m. to 8.45 p.m. and on Fridays 9.00 a.m. to 4.30 p.m.

Further information may be obtained from the main computer suite on the Preston Campus, telephone extension 243.

## Student Welfare Services

Head Miss Frances Higgins MA (Psychol), BA (Soc. Admin), DASE Ed.G, Dip VG.

The Polytechnic is aware of the experiences, the challenges and difficulties students can face in entering a course of study in higher education. To help meet these needs, a comprehensive structure of student welfare services has been developed – Accommodation, Chaplaincy, Careers Counselling and appointments (dealing with job and further educational opportunities, postgraduate awards, etc.) Counselling (covering personal, academic and financial needs or difficulties) and Health Services. Part time students are very welcome to make use of these services.

Further details are available to students when registering for their courses.

The Student Welfare Service Office is at:

Room B44,  
Block B, 1st Floor,  
Corporation Street Site,  
Preston.

## Services offered to Schools and Industry

Educational Liaison Officer GA Redhead BSc, Dip Ed.

### **Advisory Service for Schools and FE Colleges**

Pupils frequently need information and advice about courses available at Preston and Polytechnics generally, and the Educational Liaison Officer is willing to assist the careers staff in this respect. Another of his functions is to establish and maintain personal contacts between the staff of schools and their colleagues in the Preston Polytechnic.

Visits of small or large groups of Fifth and Sixth Form pupils to the Polytechnic are welcomed. Alternatively, staff of the Polytechnic will gladly visit schools to talk about courses and life in the Polytechnic, to lecture on their own specialist subjects or to assist at careers events. Careers staff are invited to contact the Educational Liaison Officer to discuss suitable arrangements.

### **Service to Employers and Employees**

Employers or employees who require information about Polytechnic courses should contact the Educational Liaison Officer who can provide a link between the management of commercial and industrial establishments and staff of the Polytechnic. Employers are encouraged to make known their views of possible courses whenever they feel the Polytechnic can be of service.

The Educational Liaison Officer will be pleased to arrange visits by employers to the Polytechnic to meet staff and see the available facilities. These include equipment used in advanced teaching and research which may be made available to industry in certain circumstances. The Polytechnic will be happy to assist in the solution of technical problems. Additionally, employers may wish to collaborate in student projects or to offer sandwich course placements. The Educational Liaison Officer is available to visit companies at their convenience for discussions.

## Physical Education and Recreation

Head of Section **J Montgomery BEd, DipPE, DipSpEd**

The section is centered on the sports hall at Preston but also has some outdoor and indoor facilities on the Poulton campus. Using these and hired facilities the following activities are catered for:- badminton, basketball, canoeing, cricket, fencing, fitness training, five-a-side football, gymnastics, hockey, jogging, judo, karate, mountaineering, netball, rugby, skiing, soccer, squash, swimming, table-tennis, tennis, trampolining, volleyball, and weight training.

Qualified coaches give instruction on all recreational activities. The Students Union run their own sports clubs through the Sports Council and the opportunity exists to participate in British Polytechnic Sports Association competitions.

Adjacent to the sports hall at Preston is a human-performance laboratory which is used for research into exercise and which forms the centre for a cardiac rehabilitation programme run in conjunction with the section providing the local community with a unique service.

The Polytechnic is situated within easy reach of the Lake District National Park and a variety of outdoor activities are available both there and more locally. A well-equipped sailing centre at Southport is a very attractive feature of the recreational facilities.

For further information and all bookings contact the Physical Educational Staff in the section's office (A.9 Ext. 227).

## Polytechnic Calendar – Part-time Courses

### Enrolment Period for Part-time Students 1980

Monday, 15th September } Tuesday, 16th September } Thursday, 18th September	Afternoons and evenings only Evening enrolment at College campus
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### Autumn Term (13 weeks)

Monday, 22nd September	Autumn term begins
Friday, 19th December	Autumn term ends

1981

### Spring Term (12 weeks)

Monday, 12th January	Spring term begins
Friday, 3rd April	Spring term ends

### Summer Term (10 weeks)

Monday, 27th April	Summer term begins
Friday 23rd May	Classes close for the Spring Holiday after evening classes
Monday, 1st June	Classes re-open
Friday, 10th July	All classes close: end of session

## Regulations

### Course 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 and 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. Details of National Certificate course requirements are given on page 85.

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.

### 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.

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 the 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 Students' Union and Polytechnic societies.

Students must conduct themselves in a quiet and orderly manner. They will be held responsible for and required to make good any damage they may cause.

Safety regulations must be observed at all times. To reduce fire risk and avoid general discomfort students must obey the notices prohibiting smoking in specified areas of the Polytechnic. Heads of Schools have authority to restrict smoking within any other part of the accommodation over which they have control.

### Absence because of illness, etc.

In the case of absence through illness, or other unavoidable cause, the student should inform his or her Course Leader immediately in writing. When an infectious illness occurs in a house or lodgings immediate notification should also be sent to a Student Counsellor. Such students must not attend the Polytechnic until a medical certificate is supplied stating that there is no risk of the infection being conveyed to others.

## Changes of address and other student particulars

Changes in student particulars occurring during the session must be notified immediately to the Academic Registrar on the form available from the Polytechnic Registry, for example: change of home or lodgings address, change of employer, change of name on marriage.

## 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. Management, staff and students all 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.

The Polytechnic has issued a **Polytechnic Safety Code** and a **Safety Sub-Code** for each School, the library, Chorley and Poulton Campuses, etc. Copies of these may be seen in the School or other appropriate offices.

Students are required, in the interests of health and safety, to provide themselves with the recommended kind of protective clothing and footwear which must be worn in workshop and laboratory classes, and to use all protective devices provided. Workshop and laboratory clothes must not be worn whilst attending lectures or whilst in the communal block.

Safety considerations are not of course confined to Laboratories and Workshops and students must exercise constant care in the diverse situations in which they will find themselves. Proper care and diligence is essential, as is attention to any advice or instructions which may be given from time to time. Safety regulations must be observed at all times. Students involved in any accident, however slight, must complete an accident report form (obtainable in Schools) and return it to the Deputy Chief Administrative Officer.

## Personal property

The Council cannot accept responsibility for the safety of students' property. Property found on the premises will be handed to the Custodian of Premises, and students wishing to reclaim lost property should address enquiries to the Custodian. The victims of theft should immediately report the circumstances personally to the police and to the Custodian of Premises or Polytechnic offices. The Polytechnic co-operates with the police in their enquiries.

Cloak lockers are available in all areas for students' use. Full-time, sandwich and block release course students may be allocated lockers for the duration of the course. Lockers should be secured by the students' own padlocks.

Lockers must be left empty and unlocked at the end of a course or session as otherwise the locks and contents will be removed.

## Parking facilities

Education Authorities have no obligation to provide parking facilities and the Polytechnic does not possess adequate facilities to meet all demands. Parking is restricted to the official car parks and cycle sheds where vehicles may be left at the owners' risk.

Students must drive very slowly in the polytechnic precincts. Roadway and delivery areas must be kept clear in case of emergencies. Please park compactly and with consideration for others.

## Course Requirements and Admission to Courses

Courses will be provided subject to adequate enrolment and subject to the limits of available teaching accommodation and staff. They may be discontinued at the discretion of the Director at any time during the session should the number of students attending fall below a reasonable level.

The acceptance of a student into a course must have the approval of the appropriate Course Committee Chairman, and students who wish to enrol into a course demanding entry qualifications must produce documentary evidence that they possess the necessary qualifications either at or before enrolment. If potential students or parents are doubtful about the best course of study to pursue for a particular career they should write in the first instance to the Educational Liaison Officer for advice.

### **Application procedure**

Application to join a course should be made in person during the enrolment period.

### **National Certificate Course requirements**

Awards are made by an external body such as a Joint Committee of the Department of Education and Science and one or more Professional institutions. To receive an award a candidate must have complied with the rules of the appropriate external body which, although there are slight variations from course to course, normally require that the candidate must:

- (a) make not less than 67% of the possible attendances in each subject in each year of the course
- (b) obtain not less than 40% of the possible marks in each subject in the examinations held at the end of each year
- (c) obtain not less than 40% of the possible marks obtainable in each year for set work, class work, laboratory work, etc., taken separately in each subject for which such marks are to be awarded, and
- (d) obtain not less than 50% of the grand total of marks obtainable in the final year. Of this total the possible marks in the examinations constitute 70% and the remaining 30% will be the possible marks for set work, class work, laboratory work, etc.

A 'Distinction' may be awarded to any candidate qualified to receive a certificate who, in the opinion of the examiners, has shown special merit in the final examination. The certificate will be specially noted with the names(s) of the subject(s) in which the candidate has reached the grade required.

## Tuition Fees

Tuition fees are payable at the beginning of each course and of each succeeding year of the course. Payment in full is due at enrolment; it is regretted that fees cannot be accepted in instalments. Cheques should be made payable to 'Lancashire County Council' and crossed. A refund of fee may be made in exceptional circumstances beyond the student's control and unforeseen at the time of enrolment. Applications for refund should be made in writing to the Academic Registrar, accompanied by the student's receipted copy of the enrolment form.

The only students excused paying tuition fees at the time of enrolment are those whose employers undertake to pay the tuition fees on their behalf; they must produce a letter from the employer to that effect. The student personally is responsible for payment of the fee if the employer refuses to accept responsibility. Fees are graded into categories (grades I-V) corresponding to the academic level of the course, and the grade of each course is shown in brackets after the course title or after the year of the course.

*Note to Local Authorities:* The course grade designation IIIINP indicates an advanced course which is not poolable under DES regulations. In respect of these courses the normal recoupment procedure will apply.

The fees below are for the 1979/80 session and increases approximately in line with the rate of inflation can be expected for 1980/81.

	<i>Part-time day or Part-time day and evening</i>	<i>Evening only</i>
	£	£
<b>Grades I and II</b>		
Weekly class hours 3 or less	25.95	25.05
" " " 4	34.20	33.30
" " " 5	42.45	41.55
" " " 6	50.70	49.80
" " " 7	58.95	58.05
" " " 8	67.20	66.30
" " " 9 to 12	75.45	74.55
<b>Grade III</b>		
Weekly class hours 3 or less	22.20	21.30
" " " 4	29.20	28.30
" " " 5	36.20	35.30
" " " 6	43.20	42.30
" " " 7	50.20	49.30
" " " 8	57.20	56.30
" " " 9 to 12	64.20	63.30

Grade IV Weekly class hours 3 or less	<i>Part-time day or Part-time day and evening</i>	<i>Evening only</i>
	£	£
4	17.10	16.20
5	22.40	21.50
6	27.70	26.80
7	33.00	32.10
8	38.30	37.40
9 to 12	43.60	42.70
	48.90	48.00

**Students under age 18 on 1st September will be charged £1.20 for a part-time day course or 30p for an evening only course. A special fee is payable by those in receipt of a State Retirement Pension (Vocational Courses only) £1.80 for academic year.**

### Open Studio Course Fees

It should be noted that a special fee structure applies to open Studio courses. Students enrol at the beginning of session and pay the fee which covers 22 weeks in the Autumn and Spring Terms. There is no charge for registered full-time students of the polytechnic or for registered unemployed persons and their dependents. A reduced fee applies for those in receipt of a state retirement pension.

	<i>Part-time day</i>	<i>Evening only</i>	<i>Reduced fee</i>
1 class	£17.70	£16.80	£1.65
2 classes	£34.20	£33.30	£3.30
3 classes	£50.70	£49.80	£4.95

### CNAA Registration Fees

A registration fee is also payable in the case of CNAA first degree courses (currently three instalments of £20 payable at the beginning of the first three years of the course) and in the case of the Diploma in Management Studies (currently £45 payable in three equal instalments at the beginning of each of the three years of the course). CNAA registration fees must be paid on enrolment and are not refundable. Students entering directly into the second year of a degree course are required to pay two instalments (£40) on enrolment, or three instalments for direct entry to the third year.

### Business Education Council Registration Fees

A registration fee (currently £13.75) is payable by all students enrolling on the BEC Higher National Certificate courses. This fee will register the student with the Business Education Council for a period of five year. During this time the student may study at the level for which registration has been effected without further payment to BEC. BEC registration fees must be paid on enrolment and are not refundable.

### Technician Education Council Registration Fees

A registration fee is payable by all students enrolling on the TEC Higher Certificate courses. A second instalment of the registration fee is payable when the student enters the final (qualifying) year of the course. Full details of the scale of fees are obtainable on enquiry from the Polytechnic Registry and are also stated on the registration forms.

### Residential Courses

In a few cases a residential course is associated with the main course. In such cases the student or the student's sponsor is responsible for any expenditure, such as travel, or subsistence, arising from the residential course.

## Enrolment

Enrolment is valid for only one academic year at a time; enrolment for part-time and block release courses will take place on the following days and during the times shown:

	<i>Afternoon</i>	<i>Evening</i>
Monday, 15th September	1.30 to 4.00	6.00 to 8.30
Tuesday, 16th September	1.30 to 4.00	6.00 to 8.30
Thursday, 18th September (Chorley only)	—	6.00 to 8.30

Students should enrol during the times and on the dates stated or during the first week of the course at times arranged by the course tutor. Postal enrolments cannot be accepted.

### Transfer permits

Students wishing to enter courses graded V, IV and IIINP who live in areas outside Lancashire must produce permission vouchers each year and present them at enrolment. The only exceptions are the following local authorities who have a reciprocal agreement with Lancashire:

Bolton	St. Helens
Bury	Salford
Cumbria	Salop
Manchester	Staffordshire
Rochdale	Trafford (vocational courses only)
	Wigan

Application for a permit must be made by the student to the Education Office of the Local Education Authority (the Metropolitan District in the case of Metropolitan Counties) in whose area he or she resides. Failure to produce the necessary permit may result in a fairly heavy charge being made against the student concerned to cover the course costs normally payable by the Local Education Authority.

### Enrolment procedure

Students should first report to the academic staff of the School in which they wish to enrol. The rooms in which the enrolment takes place will be indicated in the main entrance of the Polytechnic and at other points in the building.

When details of future courses have been determined in consultation with the academic staff, students must present enrolment forms at the Hall (A Block) for enrolment and payment of fees.

Students will not be permitted to attend classes until they have completed the enrolment procedure. At enrolment each student will receive a copy of the enrolment form bearing a cash

register number. This form must be shown to the class lecturer when the student attends each class for the first time in the session.

### Late enrolments

Students are allowed to join a course after the start of the session at the discretion of the Course Tutor. Such students must obtain an enrolment form from the School Office or the Polytechnic Registry, for completion in consultation with the Course Tutor, who will also sign the form. The enrolment form must then be presented at the Polytechnic Registry for enrolment and payment of fees.

For this purpose the Registry will remain open until 7.30 pm for the first six weeks of the Autumn Term, ie until 31st October, 1980 and for the first four weeks of the Spring Term, ie until the 7th February, 1981.

**Students who do not complete the enrolment procedure will be asked to withdraw from further classes.**

## Examinations

### Examination Fees

There are no fees for purely internal examinations of the Polytechnic. Students are however required to pay fees for other examinations, including internal examinations which are externally assessed. Full details of the scale of fees are obtainable on enquiry from the Polytechnic Registry and are also stated on the examination entry forms.

Examination fees are payable when the examination entry is submitted. Accounts for examination fees are not normally sent to grant-aiding 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.

### Entry to Examinations

**Each student is responsible for his own entry to examinations. Students will not be informed individually of the last dates of entry or of timetables of examinations, but these will be published on notice boards.**

### Examination Results

Sessional reports, which are usually sent to individual students at the end of session will include examination results. In the case of external examinations the reports, cannot be completed until the Polytechnic has received the results from the external examining bodies; notification is then sent to each student as soon as possible. (It is regretted that in the meantime enquiries about results cannot be answered).

Copies of external examination pass lists will be made available for scrutiny on the main Polytechnic examinations notice board in the Corporation Street building as soon as possible after they are received. Pass lists agreed by Polytechnic Boards of Examiners are also published either on the main Polytechnic notice board or on the notice board(s) of the appropriate School. The latter are subject to formal confirmation by the Academic Board and in some cases by other bodies (eg the CNAAs) as well.

### Re-examination

In the event of a Board of Examiners, Joint Committee or other examining body agreeing to the re-examination of a student in a subject, the student will be required to pay the full cost of the re-examination, or to share the cost proportionately should more than one student be involved in the same re-examination.

## General Information

### **Communal Facilities, Preston Campus**

The Communal Block provides facilities for the educational, social and recreational enjoyment of the students and staff. Besides administrative accommodation and a fully equipped theatre for both lectures and drama, there is a dining room, coffee lounge and a bar.

The Recreation Hall will be reserved at certain times for examinations, and occasionally for ceremonies or exhibitions, but at other times it is available to student groups, societies and individuals for games and a very wide variety of physical activities. The bridge over the north courtyard leading to the hall contains changing rooms and showers.

St. Peter's Church, converted for use as a Polytechnic Arts Centre, provides facilities for a variety of activities including concerts, exhibitions, displays, debates, lectures, social activities and a Chaplaincy Centre.

### **Refectory**

The dining room is open from 12.00 noon to 1.30 pm for lunch. A selection of dishes at various prices is available. Tea or coffee after lunch may be taken in the adjacent coffee lounge. Light teas and cooked meals are normally available from 4.30 to 6.00 pm. The Coffee Bar provides light snacks, tea, coffee, soft drinks, etc., from mid-morning to 6.00 pm. Light refreshment is available also in Robin House, the Avenham Annexe, Marshall House and Livesey House during mornings and afternoons. In the interests of hygiene, students are requested to observe any restrictions on smoking in the dining areas.

Requests for special catering should be made in the first instance to the Catering Officer well in advance of the occasion.

### **Students' Union Building**

New purpose-built premises are situated in Fylde Road, a few minutes walk from the main Corporation Street site. The building contains administrative offices for Students' Union Elected Officers and Officials; a theatre for discos, dances, debates, film and stage shows; a licensed bar; games rooms, stationery shop, etc., the whole being organised by the Students' Union to provide recreational and cultural facilities for students generally. Within the complex, but provided by the Polytechnic, is a coffee lounge, dining room and snack bar.

Union membership cards are issued at enrolment, thus enabling students to participate in social activities, to join any student club or society and to vote in elections, union meetings and other activities.

## Stationery Shop

The Polytechnic Stationery shop is open on two occasions during the day, namely 8.50 to 9.15 am, 1.00 to 2.00 pm. Students may purchase the usual items of stationery, and also special laboratory and note books necessary for many courses.

## Outside Accommodation

Shortage of accommodation at the Preston Campus makes it necessary for some classes to be held outside the main Polytechnic premises. These classes are indicated by room number prefixes as follows in the several polytechnic documents dealing with teaching accommodation:

Av	School of Art and Design Annexe, Avenham Lane, Preston
BTU	Blood Transfusion Unit, Lancaster
LH	Livesey House, Heatley Street, Preston
L	Lancaster Annexe, Storey Institute, Meetinghouse Lane, Lancaster
MH	Marshall House, Ringway, Preston
PRI	Preston Royal Infirmary, Deepdale Road, Preston
RH	Robin House, Fylde Street, Preston
W/S	Workshops, Lancaster Annexe, Lancaster

## Societies and Professional Bodies

Lecture meetings of societies and professional bodies are frequently held in the Polytechnic.

Notice of the lectures will be displayed in the main entrance foyer during the session. Individual students and members of staff are welcome to attend. Application for groups to attend should be made through the Director to the local secretary of the organisation.

## Full-time and Sandwich Courses

The Polytechnic offers a variety of courses which are listed below. Details are contained in a full-time and sandwich course prospectus which may be obtained by writing to the Educational Liaison Officer.

### **Accountancy, Professional and Secretarial**

BA (Hons) in Accounting  
BA (Hons) in Law  
BA (Hons) in Business Studies (Sandwich)  
BEC Higher National Diploma in Business Studies (Sandwich)  
BEC Higher National Diploma in Business Studies (Full-time)  
Accountancy Foundation Course for ICA, CIPFA, ACA, ICMA  
Graduate Conversion Course (1 term)

### **Art and Design**

BA (Hons) in Fashion (Sandwich)  
BA (Hons) in Fine Art  
BA (Hons) in Graphic Design (Sandwich)  
Specialist Designers' course in Ceramic based product design  
Foundation Course in Art and Design

### **Construction**

Polytechnic Diploma in Building Economics and Management  
Higher National Diploma in Building (Sandwich)

### **Engineering**

BSc (Hons) in Electrical and Electronic Engineering (Sandwich)  
Higher National Diploma/Associate Membership of the Institution of Electrical Engineers and/or  
Graduate Membership of the Institution of Electronic and Radio Engineers  
BSc (Hons) in Mechanical Engineering (Sandwich)  
HND and TEC Higher Diploma in Mechanical Engineering (Sandwich)  
HND and TEC Higher Diploma in Production Engineering (Sandwich)  
Council of Engineering Institutions Part 2 Examinations

### **Languages**

BA (Hons) in Humanities (French, Geography, History, Linguistics, English, Politics, Economics, Education Studies).  
Polytechnic Bilingual Secretary Diploma (post-grad).  
Polytechnic Bilingual Secretary Diploma (post A level).

## Management

Diploma in Management Studies (DMS)

## Psychology

BA (Hons) in Psychology

## Sciences

BSc (Hons) in Combined Sciences (Astronomy, Mathematics, Chemistry, Physics, Biology, Psychology)

Higher National Diploma in Chemistry (Sandwich)

Higher National Diploma in Physics (Sandwich)

TEC Higher Diploma in Applied Biology

Graduate Membership of the Royal Institute of Chemistry

## Social Work

BA (Hons) Applied Social Studies

Polytechnic Diploma in Applied Social Studies (post-grad)

Polytechnic Diploma in Social Work

Health Visitor's Certificate

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