

Leaflet No. 3

COVENTRY LOCAL EDUCATION AUTHORITY

**THE TECHNICAL COLLEGE**

**COVENTRY**

*Principal* : H. V. FIELD, B.Sc., Wh.Sch., M.I.E.E.

*Head of Department* :

E. A. HANNEY, M.Eng., Ph.D., M.I.E.E., M.Brit.I.R.E.

SESSION 1950-51

**ELECTRICAL ENGINEERING  
AND PHYSICS**

National Certificate Courses in Electrical Engineering (Part Time).

City and Guilds Courses in Telecommunications (Part Time).

City and Guilds Courses in Electrical Installations (Part Time).

Courses in Applied Physics (Part Time).

Matriculation Courses (Part Time and Full Time).

Intermediate Courses (Part Time and Full Time).

Degree Courses in General Science (Part Time).

Degree Courses in Engineering (Part Time and Full Time).

Special Courses in Post-Higher National Certificate Studies.

Special Courses in Physical Subjects.

W. L. CHINN, M.A.,

*Director of Education.*

*All students should obtain a copy of Leaflet No. 1.*

## College Prospectus

The complete prospectus consists of a number of separate leaflets arranged and numbered as follows:—

- No. 1. General Information, College Regulations, Class and Course Fees.
- No. 2. Mechanical Engineering, and allied courses.
- No. 3. Electrical Engineering and Physics.
- No. 4. Building and allied trades.
- No. 5. Chemistry, Metallurgy, Textiles, Pharmacy, First Medical.
- No. 6. Commercial.
- No. 7. Liberal Studies and Foreign Languages.
- No. 8. Matriculation and Degree courses.
- No. 9. Homecrafts, Bakery and Confectionery, Hairdressing.
- No. 10. Physical Education and Preliminary Courses.

Copies of the leaflets may be obtained at the College Office or the Education Office, Council House, Coventry.

College Office Hours : 8.30 a.m. to 7.30 p.m. on Mondays to Fridays.  
8.30 a.m. to 12 noon on Saturdays.

College Telephone No. : Coventry 5032 or 5033.

College Refectory : Lunches daily from 12 to 1.30 p.m., except Saturdays.  
Teas daily from 5 to 6.20 p.m., except Saturdays.

## ELECTRICAL ENGINEERING COURSES.

### NATIONAL CERTIFICATE DAY COURSES.

The Ordinary National Certificate Examinations are taken at the end of the Third Year, and the Higher National at the end of the Fifth Year. Attendance is normally one day per week.

		Class and Day of Attendance				
		Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year.</i> Electrical Engineering Engineering Science Mathematics	}	E1A*	E1B*	E1C*		
<i>Second Year.</i> Electrical Engineering Drawing Mathematics	}			E2A	E2B*	E2C*
<i>Third Year.</i> Electrical Engineering D.C. Electrical Engineering A.C. Electrical Laboratory Mathematics	}	E3A*	E3B*			E3C* E3D
<i>Fourth Year.</i> Electrical Power Electronics Electrical Laboratory Mathematics	}			E4A & E4B*		
<i>Fifth Year.</i> Electrical Power Light Currents Electrical Laboratory Mathematics	}				E5A & E5B*	

\*These classes commence at 9 a.m. In all other cases classes commence at 8.30 a.m.

#### *Recommended Evening Classes :*

- First Year—English for Engineers.
- Second Year—English for Engineers.
- Third Year—Applied Mechanics, S.2.
- Fourth Year—Applied Mechanics, S.3.

**Endorsements on National Certificates.**

Endorsements can be obtained by assessed examinations after taking approved subjects. At present the approved subjects consist of Applied Heat with Light and Sound (two year evening course) and Applied Mechanics (S.2 Applied Mechanics followed by S.3 Applied Mechanics as given in the Mechanical Engineering Department), in the case of the Ordinary National Certificate; and Electrical Measurements, Advanced Light Currents, and Industrial Administration in the case of the Higher National Certificate. In regard to Industrial Administration the classes and examinations are those described under this heading in Leaflet No. 2 (Mechanical Engineering etc.) as First Year Classes.

**CITY AND GUILDS DAY COURSES.**

**Telecommunications.**

The subjects of this Course, as formulated by the City and Guilds Institute are not all offered. The course offered at this College is given below.

		Class and Day of Attendance				
		Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year.</i>	Telecommunication Principles I					
	Telecommunication Practice Mathematics					E1Tel*
<i>Second Year.</i>	Telecommunication Principles II					
	Telephone Exchange Systems I Mathematics			E2Tel*		
<i>Third Year.</i>	Telecommunication Principles III					
	Telephone Exchange Systems II Mathematics	E3Tel				

\*These classes commence at 9 a.m. In all other cases classes commence at 8.30 a.m.

Fourth and Fifth Year courses will follow in subsequent sessions. The City and Guilds Institute holds separate examinations for every subject except Mathematics I, IV, V in which College examinations are held, and the results are recorded on any Course Certificate issued by the Institute.

Separate subject certificates are awarded by the Institute to successful candidates. Intermediate, Final and Full Technological Certificates are issued to candidates who comply with specific conditions.

**Installations.**

This Course is intended to lead to the City and Guilds Examinations for the Electricians Certificate B, which is held at the end of the third year. The examination consists of two theory papers, each of which contains a compulsory question in drawing. (A more advanced course, leading to the Electricians Certificate C, is available if there is sufficient demand). The Course occupies one day per week.

		Class and Day of Attendance				
		Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year.</i>	Trade Science					
	Workshop Mathematics					
	English					
	Drawing					
<i>Second Year.</i>	Installation					
	Electrotechnology					
	Mathematics		ET2*			
<i>Third Year.</i>	Installation Practice					
	Electrotechnology					
	Mathematics				ET3*	

\* These classes commence at 9 a.m. In all other cases classes commence at 8.30 a.m.

NATIONAL CERTIFICATE COURSE IN ELECTRICAL ENGINEERING  
(EVENING COURSE).

	Class No. and Evening of Attendance				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year.</i> Electrical Engineering Mechanics Mathematics I	300	507	20		504
<i>Second Year.</i> Electrical Engineering Drawing Mathematics II		517	304	302	
<i>Third Year.</i> Electrical Engineering D.C. Electrical Engineering A.C. Mathematics III	307*			306*	524
<i>Fourth Year.</i> Electrical Power Electronics Mathematics IV			527	309*	308*
<i>Fifth Year.</i> Electrical Power Light Currents Mathematics V	310*	311*			530

\*These classes are from 6.30 p.m. to 9 p.m. Others are from 6.30 p.m. to 8.30 p.m.

Note. See information given in respect of corresponding day courses.

CITY AND GUILDS EVENING COURSES.

Telecommunications.

	Class No. and Evening of Attendance				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year.</i> Telecommunication Principles I Telecommunication Practice Mathematics I.	327	507	329		
<i>Second Year.</i> Telecommunication Principles II Telephone Exchange Systems I OR Radio I Mathematics II	516		324 333	328	
<i>Third Year.</i> Telecommunication Principles III Telephone Exchange Systems II OR Radio II Mathematics III	331		523		330 334
<i>Fourth Year.</i> Telecommunication Principles IV Transmission and Lines I OR Radio III Mathematics IV		337 335		332	527
<i>Fifth Year.</i> Telecommunication Principles V Transmission and Lines II OR Radio IV Mathematics V	365			338 336	530

Note. See information given in respect of corresponding day courses.

### Electrical Installations.

	Class No. and Evening of Attendance				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year.</i> Installation I Theory Installation I Practice Mathematics		551	314	312	
<i>Second Year.</i> Installation II Theory Installation II Practice Mathematics	317	555			316
<i>Third Year.</i> Installation III Theory Installation III Practice Mathematics	501	318	319		

Note. See information given in respect of corresponding day courses.

**Special Courses in Post National Certificate Studies.**  
The subjects mentioned under "Endorsements on National Certificates" are not all offered every session. During the forthcoming session it is proposed to offer Applied Heat with Light and Sound (second year), Applied Mechanics, and Industrial Administration.

### NOTES FOR STUDENTS OF ELECTRICAL ENGINEERING.

#### National Certificates in Electrical Engineering.

- The examinations for National Certificates are held in the College usually in June. The question papers are set internally and assessed externally, and the Certificates are awarded by the Ministry of Education in conjunction with the Institution of Electrical Engineers.
- Students must qualify in each year of the course before proceeding to the next higher year. Conditions are laid down for so qualifying, and these include: (1) 60% of the possible attendances, (ii) 40% of the possible marks for homework and classwork taken separately for each subject, (iii) 40% of the possible marks in each subject in the examinations.
- To be awarded the Ordinary or Higher National Certificate, students must also obtain not less than 50% of the grand total of possible marks in the final year. Of this grand total the possible marks in the final examination should constitute 70% and the remaining 30% should be the possible marks for homework and classwork (including Laboratory and drawing office work) in the final year.

- It is the responsibility of each student to enter as a candidate for these examinations, and to know the last date for receipt of entries as publicised on the College Notice Boards.

#### Degrees in Engineering.

Suitably qualified students may read for a degree in engineering (B.Sc.(Eng.)) of the University of London. Two courses are provided, one of which involves part-time day and evening attendance, and the other full-time attendance. Students of Electrical Engineering take the Part I course exactly as laid down. In the Part II course the student is required to take four subjects; among these may be Electrical Power, Electrical Measurements and Measuring Instruments, Telecommunications. Entrants to the course must previously have obtained Matriculation. Regulations for exemption from Matriculation may be obtained on application to the Secretary, Matriculation, and School Examination Council, Senate House, University of London. Details of the degree courses offered are given in Leaflet No. 8.

#### Examinations of the City and Guilds of London Institute.

The examinations are taken at the College. The question papers are set and assessed by the City and Guilds Institute. It is the responsibility of each student to enter as a candidate for these examinations at the appropriate time. Particulars are publicised in the College.

#### English for Engineering Students.

The three Institutions (Civil, Mechanical, Electrical) have jointly agreed to an English examination being held at the College in October and April for students recommended by the College at any time after they have satisfactorily completed the first half of the S.2 course. Students may thereby at an early stage qualify in the English paper of the Associate Membership Examination of any of these Institutions. Students without English at credit standard in the School Certificate examination or its equivalent should prepare for the examination by taking an English class for two years.

### PHYSICS COURSES.

#### Courses in Applied Physics.

Attendance is on one day and one evening weekly.

#### First Year S.1.

Workshop Practice.  
Physics.  
Mathematics.  
Engineering Drawing.

**Second Year S.2.**

Mathematics.  
Physics.  
Chemistry.

**Third Year S.3.**

Mathematics.  
Physics.  
Applied Physics.

(Ordinary National Certificate Examination at end of Course).

**Notes for Students :—**

(a) Only the first year course will be offered in September, 1950. Subject to sufficient demand, the course will be submitted for approval for the award of Ordinary National Certificates in Applied Physics, operated jointly by the Ministry of Education and the Institute of Physics. A Higher National Certificate course will be arranged in due course for those who have obtained the Ordinary Certificate.

(b) National Certificate requirements are similar to those outlined in the notes for National Certificates in Electrical Engineering, given earlier in this pamphlet.

**Matriculation, Intermediate, and Degree Courses for General Certificate of Education.**

The subject of Physics is offered in connection with a Full-time Matriculation course, a Part-time Matriculation course, a Full-time Intermediate (Science and Engineering) course, a Part-time Intermediate (Science and Engineering) course and a Part-time Degree Course in General Science. These courses are also suitable for students who wish to take Physics at the ordinary, advanced, or scholarship level, for the General Certificate of Education. Details of the courses are given in Leaflet No. 8.

**General and Special Physics Courses.**

Physics is a basic science which many students require before specialising in their particular branch of technology. The general courses offered in the section above are designed to equip such students with a basic knowledge of Physics, and they will be found sufficiently broad to cover most needs. Students should consult the Head of the Department to determine the most suitable class. Special classes are held in Physics for students of Metallurgy and Textiles. Details are given in Leaflet No. 5.

**Mathematics (Post Graduate Course).**

For students with a degree in Engineering or Higher National Certificate with a distinction in Mathematics.

**Professional Societies.**

Students are recommended to bear in mind their ultimate professional status, and to consider the contribution which is likely to be made to this status by membership of a professional society.

In the case of electrical engineering students the relevant societies are the Institution of Electrical Engineers and the British Institution of Radio Engineers. Exemption from the Associate Membership examination of the Institution of Electrical Engineers can be obtained by gaining an Ordinary National Certificate and Higher National Certificate in Electrical Engineering (each with credits in two electrical subjects) and by obtaining endorsements on the Ordinary Certificate in Applied Heat with Light and Sound and Mechanics ; in addition a pass in the English paper (see above) is required.

Particulars of exemptions from parts of the Graduateship Examination of the British Institution of Radio Engineers may be obtained from the Head of the Department.

Particulars of requirements for membership of the Institute of Physics may be obtained from the Head of the Department.

**Relevant addresses are :—**

The Secretary, The Institution of Electrical Engineers,  
Savoy Place, Victoria Embankment, London, W.C.2.

The Secretary, The British Institution of Radio Engineers,  
9, Bedford Square, London, W.C.1.

The Secretary, The Institute of Physics,  
47, Belgrave Square, London, S.W.1.