

*Leaflet No. 5.*

**COVENTRY LOCAL EDUCATION AUTHORITY**

**THE TECHNICAL COLLEGE**

**COVENTRY**

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

*Head of Department* : H. C. Smith, M.Sc., Ph.D., F.R.I.C.

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**SESSION 1950-51**

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**CHEMISTRY, METALLURGY,  
PHARMACY AND TEXTILES**

Full-time Course for Pharmacy Intermediate, Pre-Medical and Pre-Dental.

Full-time Intermediate Course for Science, Engineering, Metallurgy.

Intermediate and Final A.R.I.C. Courses.

Degree Courses in Science and Metallurgy.

National Certificate Courses in Chemistry and Metallurgy.

City and Guilds Courses in Metallurgy.

L.I.M. and A.I.M. Courses.

Textile Courses.

Biology and Horticulture Courses.

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W. L. CHINN, M.A.,  
*Director of Education.*

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

## College Prospectus

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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.

### FULL-TIME COURSE FOR PHARMACY INTERMEDIATE, PRE-MEDICAL AND PRE-DENTAL STUDENTS.

This course occupies five days weekly for one session and the subjects are :

Chemistry.  
Physics.  
Botany.  
Zoology.

#### Notes to Students :

For Class Time Tables, see Leaflet No. 8.

- (a) Entrants to this course must possess a School Certificate or a Matriculation Certificate which has been accepted as a preliminary qualification by the Pharmaceutical Society or by the Medical or Dental School to which the student will proceed later for professional studies. The certificate must include Mathematics and it is advisable that science subjects have been studied up to School Certificate or Matriculation Standard.
- (b) Regulations for the Pharmaceutical Society's qualification may be obtained from the Registrar, The Pharmaceutical Society, 17, Bloomsbury Square, London, W.C.1.
- (c) Medical or Dental Students should obtain the Regulations from the Registrar of the particular University to which they intend to proceed, and also a written statement that they will be admitted thereto, provided they are successful in their Preliminary Examinations.

### FULL-TIME COURSE FOR INTERMEDIATE SCIENCE, ENGINEERING AND METALLURGY.

For details of these courses see Leaflet No. 8.

### FULL-TIME A.R.I.C. AND B.Sc. (GENERAL) AND A.I.M. COURSES.

Special time-tables have been drawn up to enable Ex-Service students and others to take Full-time Courses leading to A.R.I.C. or B.Sc. (General) or A.I.M. The students must be properly qualified to take advantage of these courses and must make their own arrangements for approval of the courses and for claiming any financial assistance under the Government scheme.

### PART-TIME DEGREE COURSES IN SCIENCE AND ENGINEERING.

Courses for both the Inter. and Final are provided. These involve attendance for one full day and three evenings weekly. Details of these courses are to be found in Leaflet No. 8.

A.R.I.C. COURSE.

	Day and Evening Class Times.				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>Intermediate Stage.</i>					
<i>First Year.</i>					
Physics	9-12.30				
Chemistry	1.30-5				
Physical Chemistry	6.30-9 614				
Mathematics					6.30-9 571
<i>Second Year. Inter.</i>					
Physics					9-12.30
Chemistry					2-5.30
Organic Chemistry				6.30-9 616	
Mathematics			6.30-9 576		
*Optional Subject					

Notes for Students of Intermediate A.R.I.C. Course.

(a) Students proceed to the course after gaining Matriculation qualification, or its equivalent. Students who have qualified in the subject of "General Science" will be required to take a Preliminary Intermediate Course in Chemistry and Physics before proceeding to the First Year of the Intermediate Course.

(b) Students must pass each year of the course or repeat.

\*Optional Subjects. See R.I.C. Regulations. Students will be advised by the Head of Department to take a subject suitable to them.

Final Stage.

	Day and Evening Class Times				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year. A.1.</i>					
Inorganic Chemistry				9-12	
Physical Chemistry				1.30-5.30	
Organic Chemistry					
German					
Organic Chemistry		6.30-9 617			
†Practical Chemistry			6.30-9 621	6.30-9 621	
<i>Second Year. A.2.</i>					
Inorganic Chemistry			9-12		
Physical Chemistry			1.30-5.30		
Organic Chemistry					
German					
†Practical Chemistry		6.30-9 621	6.30-9 621	6.30-9 621	
<i>Third Year. A.3.</i>					
Inorganic Chemistry		9-12			
Organic Chemistry		1.30-5.30			
German					
Physical Chemistry			6.30-8.30 623		
†Practical Chemistry		6.30-9 621		6.30-9 621	
<i>Fourth Year. A.4.</i>					
Inorganic Chemistry	9-12				
Physical Chemistry					
Organic Chemistry	1.30-4.30				
German	4.30-5.30				
Practical Chemistry					621

†Practical Chemistry. The usual requirement is one evening per week. The Head of Department will allot students to a particular evening.

**Notes for Students of Final A.R.I.C. Course.**

- (a) Students for the Associateship of the Royal Institute of Chemistry are required after the Intermediate stage, to spend at least three\* years in the study of Chemistry and to have studied one optional subject, e.g. Metallurgy, Mathematics, Biology, Physics, Physiology.
- (b) Students must have passed the College Examinations in Inter Mathematics and Inter. Physics and have maintained a good standard in Chemistry. Evidence that the student has passed examinations of equivalent standard may qualify the student to enter the Final Course. Students who fail to qualify in any year of the course must repeat that year.
- (c) Students are required, in the Final Examination, to translate into English, passages in French and German taken from Scientific Literature. A dictionary may be used.

\*The full course is now extended to Easter in the fourth year and most students will need to take this fourth year before proceeding to the examination.

**NATIONAL CERTIFICATE COURSES.**

(1) National Certificates in Chemistry.

Attendance is on one day and one evening (laboratory work) weekly.

	Day and Evening Class Times				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year. S.1.</i> Mathematics Physics Chemistry					8.30-12.30 2-5 S1 (Chem)
<i>Second Year. S.2.</i> Physics Inorganic Chemistry Organic Chemistry			8.30-12.30 2-5 S2 (Chem)		
Chemistry Laboratory					6.30-8.30 616.A
<i>Third Year. S.3.</i> Inorganic Chemistry Physical Chemistry Chemistry Laboratory				2-5.30	9-12.30 S3 (Chem)
Organic Chemistry		6.30-9 617			

Ordinary National Certificate Examinations taken at this stage.

	Day and Evening Class Times				
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>Fourth Year. A.1.</i> Inorganic and Physical Chemistry Organic Chemistry				9-12 1.30-5.30	
†Chemistry Lab.			6.30-9 621	6.30-9 621	
<i>Fifth Year. A.2.</i> Inorganic and Physical Chemistry Organic Chemistry			9-12 1.30-5.30		
†Chemistry Lab.		6.30-9 621	6.30-9 621	6.30-9 621	

Higher National Certificate Examinations taken at this stage.

Note. †Chemistry Laboratory. This entails attendance for one evening. The Head of Department will assign students to their particular evening.

**Notes for Students.**

- (a) Students must qualify in each year of the course before proceeding to a higher course of study. The qualifying conditions are (i) 60 per cent. of the possible attendances, (ii) 40 per cent. of the possible marks for homework and classwork or laboratory work taken separately for each subject, and (iii) 40 per cent. of the possible marks in each subject in the examinations. In the examinations students must obtain not less than 50 per cent. of the grand total of possible marks obtainable in the final year. Of this grand total, the possible marks in the final examination should constitute 70 per cent. and the remaining 30 per cent. should be the possible marks for homework and classwork (including laboratory work) in the final year.
- (b) It is the responsibility of each student to enter as a candidate for these examinations and to submit entry forms to the College Office by the date prescribed.
- (c) Students possessing Matriculation, School Certificate, or a good Second Year Certificate of the Day Technical School are exempt from Inorganic Chemistry in the first year course.
- (d) Students with Higher School Certificate are advised to attend the Third Year Course before proceeding to B.Sc. or A.R.I.C.

**Post Graduate Practical Chemistry.**

Facilities are available for post graduate work in laboratory methods, especially for Analytical Work. Micro, semi-micro and physical methods can be used as necessary. The Laboratory will be open on Monday evenings for this work, and intending students are asked to inform the Head of Department of their special requirements.

**METALLURGY SECTION.**

The recognised courses in Metallurgy are on a part-time day basis with one or more evening classes forming an integral part of the course, in order that sufficient time can be devoted to laboratory work. The courses lead to the following examinations.

1. Ordinary and Higher National Certificates in Metallurgy.
2. Licentiate and Associateship of the Institution of Metallurgists.

Certain subjects from the day courses can be taken separately, and these, as well as evening classes, provide instruction for such examinations as City and Guilds certificates and optional subjects for other professional examinations such as A.R.I.C.

**I. NATIONAL CERTIFICATE COURSE.**

Attendance on one day and one evening per week.

	Mon.	Tues.	Wed.	Thur.	Fri.
<i>First Year. S.1.</i> Mathematics Physics Chemistry					Met. I 8.30-12 2-5
Engineering Drawing	1 6.30-8.30				
<i>Second Year. S.2.</i> Physics Chemistry (Inorganic and Physical) Metallurgy (General)			Met. 2 8.30-12.30 2-5.30		
Mathematics IIm				519 6.30-8.30	
<i>Third Year. S.3.</i> Physics Chemistry (Inorganic and Physical) Metallurgy (General)	Met. 3 9-12.30 2-5.30				
Chemistry (Practical)			610 6.30-9		
<i>Fourth Year. A.1.</i> Physical Metallurgy Ferrous Metallurgy Metallurgical Anal.				Met. 4 9-12 1.30-5	
Metallurgy (Practical)			668 6.30-9		
<i>Fifth Year. A.2.</i> Physical Metallurgy Mechanical Working Non Ferrous Metal- lurgy*		Met. 5 9-12 1.30-5			
Metallurgy (Practical)					668 (a) 6.30-9

\*For session 1950-51 it may be necessary to transfer the Non-Ferrous Metallurgy to the evening. If so, more practical work will be done during the day.

### I (a). POST-NATIONAL COURSE.

Students who have passed the Higher National Certificate in Metallurgy and can attend during the day will form Section Met. 6 and attend on Friday 9 a.m.-12 noon and 2 p.m.-5 p.m. The following subjects will be taken:—Physical Metallurgy, Mathematics (S.3) (for endorsement to Ordinary National Certificate), Physical Chemistry (Corrosion), and Metal Finishing.

### II. Licentiate and Associateship of the Institution of Metallurgists.

Students wishing to proceed to these examinations should consult the Head of the Department. They must also make themselves familiar with the regulations of the Institution as set out in Handbook No. 2, which can be obtained from:—

The Registrar-Secretary,  
The Institution of Metallurgists,  
4, Grosvenor Gardens,  
London, S.W.1.

### II (a). Full Time Course.

Facilities are available for a full time course leading to the L.I.M. and A.I.M. examinations.

Intending students should consult the Head of the Department.

### III. City and Guilds Certificates.

Students who wish to enter for these examinations will find that the National Certificate course largely covers the syllabuses for these examinations. Evening classes are also available.

### IV. Qualifications in Engineering.

Metallurgy is included in courses leading to Higher National Certificate and Degrees in Engineering. Such classes are included in the courses set out in Leaflet No. 2. Engineering students who wish to take Metallurgy as a separate subject or as an endorsement, should take the two years' course covering the A.1 and A.2 years, *i.e.*, Classes 4M and 5M in the day or 670 and 671 in the evening.

### V. Evening Classes.

The following evening classes are offered:—

Class No.		Evening and Time.
650	General Metallurgy I .. .. .	Tuesday 6.30 to 9.00
651	General Metallurgy II .. .. .	Friday 6.30 to 9.00
652	Fuels and Refractory Materials .. .. .	Monday 6.30 to 8.30
653	Pyrometry .. .. .	Tuesday 6.30 to 8.30
655	Physical Metallurgy I .. .. .	Thursday 6.30 to 9.00
656	Physical Metallurgy II .. .. .	Monday 6.30 to 9.00
657	Physical Metallurgy III .. .. .	Wednesday 6.30 to 9.00
658	Foundry Metallurgy and Practice .. .. .	Wednesday 6.30 to 8.30
660	Extraction and Refining of Non Ferrous Metals .. .. .	Friday 6.30 to 8.30
661	Production of Iron and Steel .. .. .	Thursday 6.30 to 8.30
663	Electrodeposition (C. & G. Operatives Course) .. .. .	Friday 6.30 to 8.30
665	Metallurgical Analysis I .. .. .	Tuesday 6.30 to 9.00
666	Metallurgical Analysis II .. .. .	Thursday 6.30 to 9.00
668	Metallurgy—Laboratory .. .. .	Wednesday and Friday 6.30 to 9.00
670	Metallurgy for Engineers I .. .. .	Thursday 6.30 to 9.00
671	Metallurgy for Engineers II .. .. .	Monday 6.30 to 9.00
672	Metallurgy (Production Engineers) (Half Session only) .. .. .	Tuesday 6.30 to 9.00 (Commencing Jan., 1950).
673	Foundry Metallurgy I (C. and G. Foundrywork and Patternmaking) .. .. .	Friday 6.30 to 9.00
674	Metallurgy, B.Sc.(Eng.) Part I .. .. .	Tuesday 6.30 to 9.00 (Sept.-Dec. only).

The following classes for Metallurgy students are part of the 1st and 2nd year National Certificate course, but may be taken as separate subjects:—

I	Engineering Drawing .. .. .	Monday 6.30 to 8.30
519	Mathematics II <sub>m</sub> .. .. .	Thursday 6.30 to 8.30

The Ordinary National Certificate is taken at the end of the 3rd year of the course and the Higher National Certificate at the end of the 5th year.

### Notes.

- See (a) under National Certificates in Chemistry.
- See (b) under National Certificates in Chemistry.
- Students who have passed School Certificate Examination with credits in Maths., Physics and Chemistry can be admitted directly to the second year of the course provided they complete a course in Engineering Drawing if this was not included in their School Certificate. Similar exemption is provided for Technical Secondary School students with a good standard in the above three subjects in the second year examination.
- Endorsements to National Certificates.

The following endorsement is proposed:—

To Ordinary Grade Certificate—Mathematics.

**TEXTILE SECTION.**

**Part Time Day Classes—Textiles (Senior Course).**

The course provides fundamental instruction in Textiles extending over three years, and includes ancillary subjects (Mathematics, Mechanics, Physics, and Chemistry).

In the first and second years of the course the students will be required to attend for one full day. During the third year attendance at an additional class on one evening is necessary. At the end of the third year a student may take the Ordinary National Certificate Examination in Textiles.

Students wishing to take the City and Guilds Intermediate Examination in Silk and Rayon Weaving will take a special class in that subject.

TEXTILES (Senior Course)					
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year. S.1.</i> Maths. Physics Chemistry Textiles I		9-12 1.30-5.30			
<i>Second Year. S.2.</i> Maths. and Mechanics Physics Chemistry Textiles II				9-12 1.30-5.30	
<i>Third Year. S.3.</i> Maths. & Mechanics Physics Chemistry Textiles III Practical Chemistry	9-12.30 2-5 607 6.30-8.30				

Students who have reached the necessary standard in the Ordinary National Certificate examination in Textiles may proceed to the higher course in Rayon Production. The principal subject in each year of the two-year course is Rayon Production, which is taken in an evening class, whilst the ancillary subjects are covered during two half-day periods of each week.

**Proposed Higher National Certificate Course.**

Rayon Production Course. Part-time.					
	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year. A.1.</i> Rayon Production Textile Testing Rayon Dyeing and Finishing Laboratory Practice			7-8.30 680		2-3.30 3.30-5
			9-12		

**Evening Classes—Rayon Production (Advanced Course).**

The course is represented by a two-years programme in which Rayon Production constitutes the principal subject. The ancillary subjects include Rayon Processing, Textile Testing and Rayon Dyeing and Finishing.

The course set out below has been recognised by the Textile Institute as providing instruction of satisfactory standard in one branch of Textile Technology as required of candidates for Associateship of the Textile Institute.

Students must attend regularly and obtain satisfactory marks in written exercises and in the records of practical work. The examination scripts in the Final Year are assessed by assessors appointed by the Textile Institute.

**Rayon Production (Advanced Course).**

	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>First Year. A.1.</i> Rayon Production I Textile Testing Lab. Practice	7-9 687	8-9 686	7-8.30 680		
<i>Second Year. A.2.</i> Rayon Production II Rayon Processing Rayon Dyeing and Finishing Lab. Practice			7-9 682	6.30-7.30 7.30-9 683 & 688	7-8.30 681

A class in Mill Engineering and Services, Tuesday 6.30-8 p.m. precedes the Textile Testing lectures, and should prove of interest to many textile students.

### ASSOCIATESHIP OF THE TEXTILE INSTITUTE.

For those students possessing the necessary qualifications there are classes covering the five sections of the Associateship examination syllabus.

#### A.T.I. Course.

	Mon.	Tues.	Wed.	Thurs.	Fri.
Spinning Processes Fabric Struct. and Manufacture	7-9 691				
Textile Testing		8-9 686			
Dyeing & Finishing Lab. Practice				6.30-7.30 7.30-9 683 & 688	

#### Silk and Rayon Manufacture—Weaving Course.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Textile Technology Mill Engineering and Services	7-9 679					
*Design and colour Weaving II Weaving III Weaving IV and V		6.30-8 Time to	be arranged later 6.30-9 676 1.30-5.30			9-12

The Intermediate Grade examination is taken at the end of the 3rd year.

Final Grade examinations at the end of the 5th year.

Students requiring C. and G. Full Technological Certificate in Silk and Rayon should attend parts of the National Certificate Course in Textiles in addition to the special weaving classes. Such students should consult the Head of the Department.

\*In conjunction with the School of Art, Hill Crest, Radford Rd., Coventry

#### SPECIAL CLASSES.

If the demand is sufficient, a class for Managers and Overlookers will be established on Friday evening, 7.30-9 p.m., and will deal mainly with the Preparation and Weaving of rayon yarns.

### EVENING PROGRAMME (TEXTILE SECTION).

	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>Rayon Production 1st</i> R. Production I Textile Testing Laboratory Practice	7-9 687	8-9 686	7-8.30 680		
<i>Rayon Production 2nd</i> R. Production II R. Processing R. Dyeing & Finishing Laboratory Practice			7-9 682	6.30-7.30 7.30-9 683 & 688	7-8.30 681
<i>A.T.I. Course.</i> Spinning Processes Fabric Structures and Manufacture Textile Testing Dyeing & Finishing	7-9 691	8-9 686		6.30-7.30 683	
<i>Silk &amp; Rayon Manuf.</i> <i>Weaving Course.</i> Textile Technology Mill Engineering and Services Design & Colour for Weaving Weaving II Managers and Overlookers	7-9 679	6.30-8 120	6.30-9 676		6.30-8.30 678 7.30-9 690

#### BIOLOGY CLASSES.

In addition to the classes included in Full time courses for Pharmacy, 1st M.B., and Inter Science, the following special classes are available:—  
**Intermediate Biology. Class No. 644 Mon. 6.30-9.**

A two-year course covering work for Intermediate, Higher School Certificate, General Certificate of Education at advanced level, and as an "optional" subject for A.R.I.C. students.

#### London University Diploma in Biology.

This course comprises four sections—Botany, Zoology, Physiology and General Biology—equivalent to Pass Degree Standard.

Field work in Biology is carried out in the Summer Term.

**Lecture. Class No. 649** Tuesday 6-7 p.m. (or Mon. 5.30 -6.30 p.m.).  
**Laboratory.** Tuesday 10.30-12.30 (or at other times by special arrangement).



**Biology for Teachers.**

This evening class provides a useful discussion ground for Science teachers in primary and secondary schools, and provides opportunities for extension of practical work which underlies much of the work in General Biology teaching. During the Summer term visits are made to different districts near Coventry to illustrate variations in Biological habitat.

643 Wednesday. 7.30-9. Laboratory. C.27.

**Physiology.**

This two-year course provides for a general survey of Physiology suitable for the London University Intermediate examination. The work should be of interest to Medical Laboratory workers, to Pharmacists and to Science teachers.

642 Thursday. 6.30-9. C.27.

**General Biology.**

An introductory Course in Biology for those interested in acquiring a general knowledge of the Plant and Animal Kingdoms.

Lecture. Class No. 643\* Wednesday 6.30-7.30.

Laboratory. Class No. 644 Wednesday 7.30-9.

\*Suitable also for lecture work for Teachers interested in Nature Study work.

**Horticulture—Day Classes.**

A two-year Course suitable for Parks Department apprentices and other young gardeners and for those wishing to take the R.H.S. examinations.

	Mon.	Tues.	Wed.	Thurs.	Fri.
<i>1st Year.</i> Botany Horticultural Practice Science Soils		Times to be arranged			
<i>2nd Year.</i> Botany Horticultural Practice Science Soils	2-5.30			2-5.30	

**Evening Classes.**

	Mon.	Tues.	Wed.	Thurs.	Fri.
Horticulture (General Course)		645 7-9			
Botany for Gardeners (Summer Term)	646 7-9				