

Member State/ Country	Category B Qualifications				Type of Institution
	Name (and common abbreviation)	Course Duration	Minimum Entry Age	Entry Requirement	
BELGIUM	Industrieel Ingenieur ¹ (Ing.) ¹² Ingenieur Industriel ¹ (Ing.)	4 years full-time	18	Hoger Secundair Onderwijs and Bekwaanheidgetuigschrift Enseignement Secondaire Superieur and Certificat de maturite	Industriel Hogeschool Institut Superieur Industriel
	Gegradueerole in de Scheikunde Gradue en Chimie ¹³	2-3 years full-time	18	Hoger Secundair Onderwijs Enseignement Secondaire Superieur	Hogere Technische School van het Korte type Ecole Technique Superieur de type court
CZECH REPUBLIC	Bakalár	3 years	17-18	Maturita ²	VŠ ³
DENMARK	Laboratoire - tekniker (Kemi) Kemotekniker	1 years full-time and 1 years experience	19	Folkeskolens - afgangsbævis (studentereksamen)	Laborantskolen

¹ These are not university degrees but the education, though different in content, reaches the "university level".

¹² formerly Technisch Ingenieur in de, Scheikunde (T.Ing), Ingenieur Technicien, Chimiste (Ing.Techn.), (A1, 2^e degree), (A1, 2^{de} graad)

¹³ formerly A1, 1^{er} degree, A1, 1st graad

² Maturita (Czech legal expression) is awarded as accredited secondary school leaving examination certificate.

³ VŠ (Czech Vysoká škola) legal description of accredited university level school.

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FRANCE	Brevet de Technicien Supérieur (BTS)	2 years full-time	17-18	Baccalaureat de technicien en Chimie (BTnF6)	Lycee Technique or Ecole Privee
	Diplome Universitaire de Technologie (DUT)	2 years or 3 years part-time	17-18 20	Baccalaureat	Institut Universitaire de Technologie
	Titulaire de Certificats de Chimie (CNAM)	4 years part-time	18	Baccalaureat level	Conservatoire National des Arts et Metiers

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FEDERAL REPUBLIC OF GERMANY	Diplom-Ingenieur (FH) - Fachrichtung Chemie ¹ (level 3 and lower)	3-4 years full-time	18	Abitur or Completion of Fachoberschule	Fachhochschule
	Diplom-Laborchemiker	3-4 years full-time	18	Abitur or Completion of Fachoberschule	Universitat- Gesamthochschule
	Diplom-Ingenieurchemiker	3-4 years full-time	18	Abitur or Completion of Fachoberschule	Universitat-Gesamthochschule
	Chemotechniker	2 years full-time or 3 years	19	Abitur or Public School or Realschule and complete education as Chemielaborant	Technikerschule (Fachschule)- Private or Public
	Chemisch-Technischer Assistent	2 years full-time	17	Realschule leaving certificate or equivalent	Berufsfachschule
GREECE	Technologos Trofimon	3 years full-time	18	Apolytirio Genikou Techniku-Epangelma-tikou Lykeiou	(KATEE) Kentra Anoteras Technikis- Epangelmatikis Ekpedefseos
	Technologos Himikos Petrelaiou	3 years full-time	18	Apolytirio Genikou Techniku-Epangelma-tikou Lykeiou	(KATEE) Kentra Anoteras Technikis- Epangelmatikis Ekpedefseos

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REPUBLIC OF IRELAND	Bachelor of Science (BSc)	3-4 years full-time	17-18	Secondary School Leaving Certificate in Chemistry	University or College of Technology
	Bachelor of Arts (BA)	3-4 years full-time	17-18	Secondary School Leaving Certificate in Chemistry	University or College of Technology
	Diploma in Applied Science (Dip.Ap.Sc.)	3-4 years	17-18	Secondary School Leaving Certificate in Chemistry	College of Technology
	National Diploma in Science - Applied Chemistry (Nat.Dip.Sc.)	3-4 years full-time	17-18	Secondary School Leaving Certificate in Chemistry	Regional Technical College
ITALY	Diploma Universitario in Chimica (D.U.)	3 years full-time	18-19	Maturità	University
	Diploma Universitario in Chimica industriale (D.U.)	3 years full-time -	18-19 -	Maturità -	University -
LUXEMBOURG	None are awarded ⁴				

⁴ There is recognition in Luxembourg of the qualifications from other European Communities countries as set out in the category-B schedule.

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THE NETHERLANDS	Diploma HNWO ^{1,5}	4 years full-time	17-18	Diploma Hoger Algemeen Vormend Onderwijs (HAVO)	Laboratoriumschool
	Middelbaar Beroeps Onderwijs Chemie ¹¹	4 years full-time	16-17	Diploma Middelbaar Algemeen Vormend Onderwijs (MAVO) OR Diploma Lagere Technische School	Regionaal Opleidings Centrum (ROC)
PORTUGAL	Bacharelato em:				
	Engenharia Quimica	3	18		Inst. Superior Politecnico
	Engenharia Textil	3	18		Univ. do Minho e Univ. Beira Int.
	Licenciatura Fisica e Quimica (Ensino de)	4	18		Univ. Novas
	Bacharelato em Fisica e Quimica (Ensino de)	3	18		" "
	Curso Superior de Enologia ⁶	4	18		" "
Agente Tecnico de Engenharia Quimica ⁷	4	16		Inst. Superiores de Engenharia	

¹ These are not university degrees but the education, though different in content, reaches the "university level".

⁵ This type of education is an experiment which will be discontinued in a few years time.

¹¹ formerly Hoger Beroeps Onderwijs B/Lab. Opleiding (HBO-B) or Hoger Beroeps Onderwijs A/Lab. Opleiding (HBO-A)

⁶ Chemistry of wines.

⁷ This qualification was awarded up to 1974.

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SPAIN	Ingeniero Tecnico en Quimica Industrial (Ing. Tec. Quim.)	3 years full-time	18	Bachillerato Superior (BUP y Curso Orientacion Universitaria (COU)	Escuelas Universitarias de Ingenieria Tecnica publicas o privadas Facultades Universitarias de Ciencias o de Quimica. Colegios Universitarios
	Diplomado en Ciencias Quimicas (Dipl.Quim.)	3 years full-time	18	Segundo Grade de Formacion Profesional y COU Bachillerato Superior (BUP) y Curso Orientacion Universitaria (COU) Segundo Grado de Formacion Profesional y COU	
SWEDEN	Filosofie Kandidat, Fil kand (BSc)	3 years full-time			
	Högskoleingenjörer	2-3 years full-time			
	Ingenjörsexamen				

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Member State/ Country	Category B Qualifications				Type of Institution
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UNITED KINGDOM ⁸	Bachelor of Science (BSc)	3-4 years full-time /or 5 years part-time	17 or 18	GCE 'A' Level, or SCE Higher Grade, or National Certificate, or Ordinary National Certificate (ONC)	University
	Bachelor of Arts (BA)	3-4 years full-time /or 5 years part-time	17 or 18	GCE 'A' Level, /or SCE Higher Grade, /or National Certificate, /or Ordinary National Certificate (ONC)	University
	Higher National Diploma (HND) in Chemistry <i>(formerly: BTEC or TEC or SCOTVEC Higher Diploma /or DES/SED/RSC Higher National Diploma)</i>	2 years full-time or 3 years sandwich ⁹	17 or 18	GCE 'A' Level, /or SCE Higher Grade, /or National Certificate, /or Ordinary National Certificate (ONC)	University or College
	<u>All subject to approval by the Royal Society of Chemistry (RSC)</u> Licentiate of the Royal Society of Chemistry (LRSC) ¹⁰	3 years part-time	17 or 18	GCE 'A' Level, /or SCE Higher Grade, /or National Certificate, /or Ordinary National Certificate (ONC)	University or College

⁸ TEC: Business and Technician Education Council
DES: Department of Education and Science
TEC: Technician Education Council
GCE: General Certificate of Education

SCOTVEC: Scottish Vocational Education Council
SED: Scottish Education Department
SCOTEC: Scottish Technical Education Council
SCE: Scottish Certificate of Education

¹⁰ LRSC is a professional grade of membership of the Royal Society of Chemistry; the academic requirements are often based on the BTEC or SCOTVEC HND or HNC plus additional study. Persons with an approved ordinary BSc degree can also gain admission.

⁹ Sandwich: alternating periods of full-time study and industrial experience.

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