



Information sheet 2

City & Guilds and the Engineering Council UK

Working together to bring you

Tech Eng, IEng and CEng Examinations and a route to becoming an internationally recognised top level Professional Engineer

Qualification details

Note – EC syllabuses are available from the web (www.cityandguilds.com/ecukexams) and past papers upon request and for a small fee.

Engineering Council Certificate

This is the standard expected of an undergraduate at the end of the first year of a degree programme. Engineering Council Examinations recognises other British and overseas qualifications in an engineering discipline as meeting the requirements for Certificate level, so providing a direct route into the Graduate Diploma level.

Guidelines for the Engineering Council Certificate

You will need to be registered as a candidate for which the Engineering Council Examinations at City & Guilds makes a charge to each applicant prior to entering for examinations.

1. Entry to the Certificate component is through possession of 2 'A' levels in mathematics and science subjects, or their equivalent, as may be agreed by Engineering Council Examinations at City & Guilds.
2. Candidates may take the maximum number of papers required in one sitting, although they are normally advised not to attempt more than three papers simultaneously
3. Candidates may repeat papers as many times as they wish. This will be known to the professional institution they are wishing to join and in some circumstances may count against an application for professional registration. It will not, however, count against successful completion of the Certificate requirements.
4. Institutions may, in certain circumstances, impose time constraints on the time taken to complete the Certificate.
5. Candidates are required to pass all four of the compulsory papers and two more papers from the available supplementary choices in order to qualify for the Engineering Council Certificate.

Certificate examinations

IT	Elec	Mech	Civil	Chem	Compulsory subjects	
	x	x	x	x	9107-101	Mathematics
	x	x	x	x	9107-102	Engineering Materials
	x	x	x	x	9107-103	Engineering Science
	x	x	x	x	9107-104	Engineering Perspectives and Skills
					Optional subjects	
		x	x		9107-105	Mechanical and Structural Engineering
		x		x	9107-106	Thermodynamics, Fluid and Process Engineering
	x				9107-107	Electrical and Electronic Engineering
	x		x	x	9107-108	Software and Information Systems Engineering
Info Tech	Electrical	Mechanical	Civil	Chemical		

Graduate Diploma

This is set at the standard for the final (third) year of a British BEng (Honours) degree course.

The papers required in order to gain an Engineering Council Graduate Diploma must be chosen from about 20 technical papers set each year at this level. Students need to be sure, before they begin their studies, that the combination of papers chosen is agreed by the chosen professional institution as being acceptable registration as a Chartered Engineer (CEng).

Candidates may apply for entry to one or more papers in this series, to fulfil 'top up' requirements.

Guidelines for the Engineering Council Graduate Diploma

Candidates must be registered for the Engineering Council Examinations at City & Guilds. A charge to each applicant is made.

1. Entry to the Graduate Diploma component is through possession of the Engineering Council Certificate, or equivalent as may be agreed by Engineering Council Examinations at City & Guilds or by being exempted by a professional institute (in UK). Applicants in possession of City & Guilds Advanced technician diploma IVQ in the following disciplines, 6165, 8030-2000, 2565, 3905, 2730, and 2720 are also exempted from the certificate level and may enter directly to the Graduate Diploma.
2. Candidates are free to choose five papers from the choice of available papers at Graduate Diploma level, referring to their professional institution for advice on acceptability. They must successfully complete these and a Project to qualify for the award of Engineering Council Graduate Diploma.
3. Candidates may repeat papers as many times as they wish, but this will be known to the professional institution and in some circumstances may count against an application for professional registration. It will not, however, count against successful completion of the Graduate Diploma requirements.
4. Institutions may, in certain circumstances, impose time constraints on the time taken to complete the Graduate Diploma.

Graduate Diploma examinations

Guidelines for examination permutations

*Candidates may take either 203 or 204 but not both: 203 is designed to be most appropriate for mechanical or chemical engineers, 204 for civil engineers.

+ Candidates may take either 221 or 222 but not both.

Requirements are for **five** papers from 201 – 203, 205 – 221 and 223 – 231, **or** 201 – 202, 204 – 221 and 223 – 231, **or** 201 – 203, 205 – 220 and 222 – 231, **or** 201 – 202, 204 – 220 and 222 – 231 and the project report 232.

IT	Elec	Mach	Civil	Chem.		
		x		x	9107-201	Applied Thermodynamics
		x		x	9107-202	Heat and Mass Transfer
		x	x	x	9107-203	Fluid Mechanics *
		x	x		9107-204	Hydraulics and Hydrology *
				x	9107-205	Separation Processes
				x	9107-206	Chemical Thermodynamics, Kinetics and Reactor Design
			x		9107-207	The Built Environment
		x			9107-208	Materials
		x	x		9107-209	Mechanics of Solids
			x		9107-210	Structural Analysis
			x		9107-211	Structural Design
		x			9107-212	Design and Operation of Marine Vehicles
			x		9107-213	Geotechnical Engineering
			x		9107-214	Engineering Surveying
	x				9107-215	Fields and Circuits
	x				9107-216	Electrical Machines and Drives
	x				9107-217	Electrical Energy Systems
	x				9107-218	Electronic Systems Engineering
	x				9107-219	Telecommunication Systems Engineering
x	x	x	x	x	9107-220	Quality and Reliability Engineering
		x			9107-221	Analysis and Design of Manufacturing Systems +
			x		9107-222	Construction Management +
x	x	x	x	x	9107-223	Management
	x	x	x	x	9107-224	Mathematics
		x			9107-225	Dynamics of Mechanical Systems
		x			9107-226	Manufacturing Technology
	x	x		x	9107-227	Control Systems Engineering
x					9107-228	Information Systems Engineering
x					9107-229	Software Engineering
x	x	x		x	9107-230	Software for Embedded Systems
x					9107-231	Computer Systems Engineering
x	x	x	x	x	9107-232	Project - compulsory
Info Tech	Electrical	Mechanical	Civil	Chemical		

Postgraduate Diploma

This is set at the standard of the final (fourth) year of a British MEng first degree.

Students can gain entry to the Postgraduate Diploma by:

- achieving the Engineering Council Graduate Diploma
- holding a BEng(Hons) degree accredited by a professional UK institution;
- having an exemption through an Individual Case Procedure carried out by your professional institution;
- applying for consideration to be given to your current qualification which is deemed to be equivalent to a UK engineering degree (three year) by the Engineering Council Examinations Department.

Guidelines for the Engineering Council Postgraduate Diploma

1. Candidates are required to complete successfully the following:
 - One compulsory paper in Advanced Engineering Analysis
 - One technical paper at an advanced level chosen from about five or six available
 - Two further papers chosen from amongst those available for Graduate Diploma candidates. These must not be papers which have been attempted before
 - Successful submission of a project report to include management principles.
2. Candidates may repeat papers as many times as necessary in order to qualify for the Engineering Council Postgraduate Diploma, but failure may be noted by the professional institution and in some circumstances may count against an application for professional registration when they apply for Chartered status.
3. Professional institutions may, in certain circumstances, impose constraints on the time taken to complete the Postgraduate Diploma.
4. The Postgraduate Diploma will only be awarded to candidates who fulfil the full requirements as specified above.

Postgraduate Diploma examinations

	x	x	x	x	9107-300	Advanced Engineering Analysis
					Optional – choose ONE only	
					9107-301	Gas Dynamics
					9107-302	Computational Mechanics Using Finite Element Method
					9107-303	Telecommunications Engineering
					9107-304	Advanced Manufacturing
					9107-305	High Performance Computer Systems Engineering
	x	x	x	x	9107-306	Project - compulsory
Info Tech	Electrical	Mechanical	Civil	Chemical	Plus TWO papers available for the Graduate Diploma, that have not been attempted before.	