Getting Chartered

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Presentation outline

▪ about IChemE
▪ what is a Chartered Chemical Engineer?
▪ qualification requirements
▪ Chartered Chemical Engineer competencies
▪ application process
▪ hints and tips
A learned society with international reach
Pathways to membership

- Fellow (FIChemE)
- Chartered Member (MIChemE)
- Associate Member (AMIChemE)
- Technician Member (TIChemE)
- Student Member
- Associate Fellow (AFIChemE)
- Affiliate Member
What is a Chartered Chemical Engineer?

“a competent practitioner committed to the highest, professional standards”

- widely recognised
- externally validated
- peer reviewed
- Engineering Council
Why get Chartered?

- career development and salary progression
- employer expectations
- client requirements
- peer recognition
- postnominals - MIChemE
- professional pride and commitment
Additional professional registrations

At time of application
- Chartered Engineer (CEng)
- Chartered Scientist (CSci)
- Registered Professional Engineer Queensland (RPEQ)

Once Chartered
- Professional Process Safety Engineer
- European Engineer (EurIng)
- Chartered Environmentalist (CEnv)
How to get Chartered
Chartered application requirements

Knowledge & understanding
- core principles
- advanced chemical engineering & design

Professional experience
- competence
- commitment

Submit application
Supporting evidence requirements

Knowledge & understanding

Degree accredited to M-Standard = no additional evidence required.

Degree accredited to B-Standard or non-accredited = further evidence required.

Professional experience

Competence and Commitment (C&C) report.

Submit application
Preparing your Competence and Commitment report
C&C report

- proof of professional competence

- 3,000 words max

- templates, examples and guidance available at: www.icheme.org/candc
Show your experience

- Depth
- Breadth
- Responsibility
- Process safety
- Best practise
- Continuing improvement

Competence and commitment
Examples of professional experience

- Process plant operation
- Legalisation, regulation
- Computer application
- Development of products, services
- Project management, administration
- Teaching, managing, training
- Instrumentation & control
- Quality & assurance
- Technical/economic evaluation
- Research & development
- Economic accountancy, cost estimation
- Technical sales, marketing, contracts
- Health, safety, risk aspects
- Design of process plant & equipment
- Sustainability & environmental aspects
Professional responsibility

- working under **own** supervision
- training **others**
- budget **control**
- acting on your own **initiative**
- responsible for **consequences** of your technical judgements

You **do not** need to lead a team of engineers.
The Competence and Commitment report

A. Demonstrates ability to apply chemical engineering knowledge and understanding to practical situations.

B. Shows ability to handle the wider social, environmental, and economic implications of your work.

C. Shows interpersonal, leadership and communication skills.

D. Demonstrates commitment to a high standards of professional and ethical conduct.

E. Demonstrates effective continuing professional development.
Competence and Commitment report

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Section A

i - Identifying a problem

For example: environmental hazard, safety or product quality.

Example solutions

- new technology
- new product development (NPD)
- market growth
ii - Interdisciplinary working

Combining ideas of different people and disciplines to arrive at appropriate engineering, solutions.

Example collaborators

- other engineers
- specialists
- public authorities
- finance
- sales and marketing
Section A

iii - Creativity & innovation

Example ideas

- suitability of design
- lateral thinking
- novel approaches
- link to proven solutions
- making process easier

Your ideas, designs, technical solutions, processes for cost reduction, efficiency or improvements.
Section A

iv - Scientific or technical evaluation

Example considerations

- safety
- feasibility
- evaluative approach
- engineering skills requirement

Product, process equipment vs brief requirement.
Section A

v - Planning & project delivery

Your contributions and leadership in organising technical work and validating solutions.

Example contributions

- implement or validate solutions, designs
- correction measures
### Competence and Commitment report

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Section B

i - Handling health and safety aspects

Application of key principles, legislation good practice etc.

Example solutions

- HAZOP
- risk register
- safety inspections
- regulation compliance
Section B

ii - Handling sustainability aspects

Environmental concerns
recognition of risks
social issues.

Example management

- reducing waste
- emissions
- impact assessments
- sustainability
Section B

iii - Show management of commercial and economic aspects

Economic evaluation of process/plant.

Example management

- cost estimating
- tendering
- managing budgets
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Section C examples

i - working peer & staff relationships

Ensuring you and colleagues are up-to-date.

Example considerations

- managing challenges
- conflict resolution
- cultural awareness
- achieving objectives across teams
Section C examples

ii - Demonstrating leadership

Initiating projects, delegating, training promoting ChemEng.

Example of personal drive

- conveying commitment and enthusiasm
- achieving team results
- working with peers
iii - Communicating ideas and plans

E.g. show how you communicate effectively

Example of effective communication

- report writing
- technical presentations
- oral presentations
- PhD, EngDoc
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E. Demonstrate effective continuing professional development
What you do to help advance profession and ethical conduct?

i - Professional conduct examples:
- working to codes of conduct
- supporting professional body/ mentoring
- schools outreach – promoting ChemEng
- Member group activities, workshops and seminars

ii - Ethical conduct examples:
- decision making
- adherence to policy and procedures
- avoiding conflicts of interest
- health and safety, employee misconduct
Continuing Professional Development

Need to show goals and potential benefits.

i  Recent CPD activity
ii  Future CPD goals

Examples of CPD activity:

- in-house/external courses
- IChemE Member Group or Special Interest
- on-the-job learning
- experience of working in different discipline within chemical engineering
- research/publishing
### E  Continuing professional development (CPD)

#### i) Report of recent CPD already undertaken (eg within last two years):

<table>
<thead>
<tr>
<th>Briefly describe the methods and tools you use to record your CPD activities</th>
<th>(expand as necessary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the significant CPD activities you have carried out in the last 1-2 working years</td>
<td>For each activity listed, describe the purpose / objective of carrying it out and the benefits you gained from it.</td>
</tr>
<tr>
<td>(expand as necessary)</td>
<td>(expand as necessary)</td>
</tr>
</tbody>
</table>

#### ii) Future CPD Plan

<table>
<thead>
<tr>
<th>Briefly describe the method and approach/tools that you use to identify your CPD development objectives, and how they are turned into an actionable plan.</th>
<th>(expand as necessary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the development objectives that you have identified to be addressed in the next 1-2 years and the purpose of each one</td>
<td>For each development objective listed, describe what activities you plan to carry out to achieve it and the expected timescale</td>
</tr>
<tr>
<td>(expand as necessary)</td>
<td>(expand as necessary)</td>
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</tbody>
</table>
Verifying your C&C report

- third party verification of your C&C report is required
- verifiers must be familiar with your work and hold a position of responsibility
- do not necessarily have to be Chartered Members or chemical engineers
Referees

Two referees must be:

- Chartered or Fellow Members of IChemE familiar with you, your work and career

can be:

- superior
- your mentor
- regional group or SIG group member
- university lecturer
Application process
Application checklist

- C&C report
- academic qualifications
- technical or design evidence report/s (if relevant)
- photo ID and tailored CV
CV must include

- tailored, up-to-date summary of your experience
- relevant information only
Application process

1. **Apply online**
2. **Submit C&C and/or Technical and/or design evidence report**
3. **Attend peer review interview**
4. **Awarded Chartered status**
Interview stage

- approximately one hour interview

- the interviewers ask questions based on the C&C report and your CV

- trained Chartered Members and/or Fellows conduct the interviews
Hints and tips
Competence and commitment report

- start application now
- use C&C template
- update regularly
- observe 3000 word limit
- ask for advice from a mentor
- demonstrate problem-solving
- show technical decision-making
- show professional responsibility

COMPETENCE AND COMMITMENT REPORT
Chartered Member (MICheM) Chartered Chemical Engineer

Complete this report to provide evidence that you have the required level of professional experience to support an application for Chartered Membership. For further guidance on what evidence is required of your knowledge and understanding, please refer to www.icheme.org/chartered.

Please complete this report electronically within approximately 3,000 words [each subsection will expand to allow you to provide sufficient evidence], then sign (the applicant’s statement), obtain confirmation and approval as part of your online application.

Tick one box only to indicate which application route this report refers to:
- MChem Eng registration
- MChem Eng CSoE registration
- MChemE only

If you wish to apply for both registrations, an additional Section 4 and Table 1 must be completed separately.

Your audience should be aware that:
- chemical and general engineering knowledge and understanding
- scientific knowledge and understanding

Section 1: Evidence of applying your knowledge and understanding to practical situations:

- Applying appropriate theoretical and practical methods to identify or define a problem, opportunity, or project

Section 2: Evidence of problem-solving

- Determining ideas and contributions from different people and disciplines to arrive at appropriate engineering, technical or scientific solution

Section 3: Evidence of decision-making

- Displaying creativity and innovation: developing your own ideas to produce new engineering, technical or scientific solutions, new designs and new technological approaches

Section 4: Evidence of technical and professional evaluation

- Understanding scientific or technical evaluation and optimisation (of product, process, equipment, method, process step, plant or the requirements you identified, or the steps you were given)

Section 5: Evidence of planning and executing projects

- Planning and executing projects: organising or performing technical work to implement or update solutions, designs etc.
Getting your C&C report right

- include **technical** not sensitive or confidential detail
- choose **one** in-depth example & 1-2 brief points
- use **plain English**
- ask a mentor to check for **gaps** in your experience
- focus on **how you** solve problems
Getting Chartered Q&A

www.icheme.org/chartered

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