<table>
<thead>
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<th>A</th>
<th>Design of Engineering Systems (Public Health - core)</th>
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**OBJECTIVE:**

Demonstrate capability in the planning, execution and management of the design process, from concept to tender/detail design stage, of the core public health engineering systems in modern construction projects:

- A (PH1) Drainage Systems (above ground)
- A (PH2) Drainage Systems (below ground)
- A (PH3) Hot and Cold Water Services
- A (PH4) Conservation and Sustainability

**TYPICAL EVIDENCE RECORD:** Some of the following, or similar:

- Analysis, assessment and/or calculations
- Preliminary sketch designs
- Project calculation files
- Schematic and layout drawings
- Specifications or proposals

**TYPICAL COMPETENCE ASSESSMENT:** Some of the following, or similar:

- Correct design approach to satisfy brief criteria
- Correct application of regulations and standards
- Correct assessment of demand criteria
- Correct selection of system arrangement and ratings
- Correct design development calculations
- Correct drawing/ specification/ solution/ development

**TYPICAL ACTIVITIES:** Some of the following, or similar:

- On-the-job training in a project design team
- Study of CIBSE online modules
- Lectures and seminars on this subject
- Private study of British Standards, other standards, design guides, manufacturers’ technical literature, journals and publications
- Project design work

**Note:** See separate sheets (PH1) – (PH4).