## CORE OBJECTIVES (ACE)

### 1. Engineering Practice and Application

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#### Part I

**1.1 Aircraft Engineering Practice**

- i) The concept of airworthiness
- ii) Hong Kong SAR aviation legislation
- iii) U.S. and E.U. aviation legislation
- iv) Air Operator’s Certificate requirements and practices
- v) Design / Production organisation requirements and practices
- vi) Maintenance organisation requirements and practices
- vii) Continuing Airworthiness Management
- viii) Human Factors
- ix) Safety Management Systems
- x) Electrical and electronic fundamentals
- xi) Digital Techniques and electronic instrument systems
- xii) Material and hardware
- xiii) Maintenance Practices
- xiv) Aeroplane / helicopter aerodynamics, structures and systems
- xv) Gas Turbine Engine / Piston Engine / Propeller

### Part II (choose 1.2 or 1.3)

**1.2 Design**

- i) Airworthiness codes on aircraft systems / engines / structures
- ii) Type approval process appreciation
- iii) Classification of major / minor change and repair
- iv) Major / minor changes in aircraft systems / engines / structures
- v) Major / minor repairs in aircraft systems / engines / structures
- vi) Design document compilation
- vii) Design liaison with aircraft / engine manufactures
- viii) Critical Design Configuration Control Limitations Ageing Aircraft and ageing aircraft systems
- ix) Safety assessment
- x) Maintenance programme and reliability

*As appropriate to the company*
### CORE OBJECTIVES (ACE)

1. **Engineering Practice and Application**

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<th>1.3 Maintenance Operations</th>
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<tr>
<td>i) Certificate of Airworthiness process</td>
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<td>ii) Certificate of Release to Service process</td>
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<td>iii) Maintenance programme process</td>
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<td>iv) Reliability programme process</td>
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<tr>
<td>v) Design / maintenance liaison with aircraft / engine manufacturers / aviation authorities / operators</td>
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<td>vi) Maintenance check schedule and package management</td>
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<td>vii) Production planning and control</td>
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<td>viii) Defect control and management</td>
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<td>ix) Aircraft, engine and structure standard maintenance practices</td>
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<tr>
<td>x) Aircraft / engine systems and structures design appreciation, modification, repair, overhaul, replacement and inspection</td>
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<td>xi) Critical Design Configuration Control Limitations</td>
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<td>xii) Ageing Aircraft and ageing aircraft systems</td>
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## CORE OBJECTIVES (ACE)

### 2. Aircraft Engineering Administration and Management Techniques

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#### 2.1 Technical and Commercial Leadership

- i) Maintenance error management
- ii) Quality management
- iii) Lean sigma for improvement
- iv) Project management
- v) Financial management
- vi) Supply chain management
- vii) Knowledge management
- viii) Occupational Safety & Health management
- ix) Environmental management

#### 2.2 Interpersonal Skills

- i) Leadership for results
- ii) Effective team building
- iii) Effective communication
- iv) Effective presentation skills

*C/E*