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| Title | **Form articles by different techniques** |
| Level | **3** | **Credits** | **16** |

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| Purpose | This competency standard is designed to provide basic competencies about the process of forming the ceramics articles using casting, pressing, and jiggering techniques in accordance to the requirement of the industry. |

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| Classification ISCED | 0214 Handicrafts |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **C1. Make articles by casting techniques** | **Trainee will be able to :****P1.** Clean all parts of the moulds**P2.** Apply dry lubricants to the parts of the moulds.**P3.** Combine/ fix different parts of the moulds.**P4.** Level the moulds before filling.**P5.** Fix the mould on the casting bench | **Trainee will be able to :****K1.** Understand different parts of the mould.**K2.** Identify the defects of the moulds**K3.** Identify the quality of the body slip**K4.** Apply dry lubricants to the parts of the moulds. |
| **C2. Filling of moulds** | **Trainee will be able to :****P1.** Fix the mould parts with clamps**P2.** Make suitable holes for filling and drain of the body slip.**P3.** Make seamless joints of the moulds.**P4.** Pour the slip in casting holes | **Trainee will be able to :****K1.** Assess the quality of the body slip for density, viscosity and residue.**K2.** Apply suitable force to fix the clamps.**K3.** Explain the leveling of the moulds**K4.** Identify the speed of the filling of the mould |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **C3. Analyse the casting thickness and time** | **Trainee will be able to :****P1.** Check the thickness of the casted article**P2.** Drain the excess slip from the mould | **Trainee will be able to :****K1.** Assess the quality of the mould. **K2.** Identify the useful life of the mould. **K3.** Use the tools for thickness checking**K4.** Explain the effect of weather on the casting time |
| **C4. Make articles by pressing technique** | **Trainee will be able to :****P1.** Make granulate manually**P2.** Operate manual / hydraulic press**P3.** Fix die in the press**P4.** Apply suitable force for pressing | **Trainee will be able to :****K1.** Assess the moisture contents of the granulate**K2.** Identify the size of the granulate**K3.** Know the heat requirement of the dies**K4.** Understand the requirement of aging of the granulate**K5.** Identify the defects of the pressed wares.**K6.** Fill the die with required weight of the material |
| **C5. Make articles by jiggering and jollying** | **Trainee will be able to:****P1.** Operate the filter press**P2.** Fix the filter cloth**P3.** Operate the pug mill**P4.** Fix the die in the pug mill**P5.** Adjust the wire cut**P6.** Operate the jiggering and jollying | **Trainee will be able to:****K1.** Fix the inlet pipes to the filter press.**K2.** Understand the need of pressure required for filter press **K3.** Assess the moisture contents of the slip and filter cake. **K4.** Know the heat requirement of the dies**K5.** Identify the lubrication of the machine parts**K6.** Understand the requirement of the storage environment of |

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| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
|  | **P7.** Machines**P8.** Fix the dies in the jiggering and jollying Machines. | the filter cake and cut pieces.**K7.** Identify the defects of the articles.**K8.** Understand issues related to the dry and humid atmospheres. |