**UNIVERSITI TEKNOLOGI MARA**

**CID420: CERAMIC COMPUTER AIDED INDUSTRIAL DESIGN**

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| **Course Name (English)** | CERAMIC COMPUTER AIDED INDUSTRIAL DESIGN APPROVED |
| **Course Code** | CID420 |
| **MQF Credit** | 2 |
| **Course Description** | This course will include concept of technical drawing, construction drawing, isometric drawing, assembly drawing, production drawing and the basic knowledge of 2 D technical drawing software |
| **Transferable Skills** | Computerized Drawing Skill |
| **Teaching Methodologies** | Lectures, Lab Work, Demonstrations, Tutorial, Computer Aided Learning |
| **CLO** | CLO1 Identify relevant knowledge and understanding, attributes and skills in effective ways in the contexts of creative and innovative practices<br>CLO2 Demonstrate broad-based knowledge and skills in the area of 2 D technical drawing by using Computer Aided Design application<br>CLO3 Apply the skills and principles of lifelong learning in their academic and career development within the specialized area as mention above |
| **Pre-Requisite Courses** | No course recommendations |

| **Topics** |
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| **1. 1. Introduction to 2D technical drawing**<br>1.1) 1.1. Function and purpose of technical drawing<br>1.2) 1.2. Representation of technical drawing<br>1.3) 1.3. Drawing apparatus and their application<br>1.4) 1.4. Standard drawing paper and scales |
| **2. 2. Introduction to CAD software**<br>2.1) 2.1. Familiar with various components of the Graphical user interface (GUI)<br>2.2) 2.2. Basic commands<br>2.3) 2.3. Coordinate system<br>2.4) 2.4. Draw commands<br>2.5) 2.5. Geometrical construction<br>2.6) 2.6. Line Properties<br>2.7) 2.7. Dimensioning<br>2.8) 2.8. Text command<br>2.9) 2.9. Layer and Plotting |
| **3. 3. Hand on Projects**<br>3.1) Hand on Project 1a (circle & line)<br>3.2) Hand on Project 1b (polygon & line)<br>3.3) Hand on Project 2a (wooden block)<br>3.4) Hand on Project 2b (interior design)<br>3.5) Hand on Project 3 (title block & logo)<br>3.6) Test 1<br>3.7) Hand on Project 4a (friction plate)<br>3.8) Hand on Project 4b (geneva cam)<br>3.9) Hand on Project 5 (Trophy and Mug)<br>3.10) Hand on Project 6a (metal handle)<br>3.11) Hand on Project 6b (engine block)<br>3.12) Test 2 |

| Assessment Breakdown | % |
|---|---|
| Continuous Assessment | 60.00% |
| Final Assessment | 40.00% |

**Details of Continuous Assessment**

| Assessment Type | Assessment Description | % of Total Mark | CLO |
|---|---|---|---|
| Assignment | hand on project 1a (circle, polygon and line) | 10% | CLO1 , CLO2 |
| Assignment | hand on project 2a (wooden Block, interior design) | 10% | CLO1 , CLO2 |
| Assignment | hand on project 3 (title block and logo) | 10% | CLO1 , CLO2 |
| Assignment | hand on project 4a (friction plate and geneva cam) | 10% | CLO1 , CLO2 , CLO3 |
| Assignment | hand on project 5 (trophy and mug) | 10% | CLO1 , CLO2 , CLO3 |
| Assignment | hand on project 6a (metal handle and engin block) | 10% | CLO1 , CLO2 , CLO3 |

**Reading List**

**Reference Book Resources**

- **Ellen Finkelstein 2011, *AutoCAD 2012and AutoCAD LT 2012 Bible*, 1st Ed., Wiley [ISBN: 9781118022214]**
- **David Byrnes 2011, *AutoCAD 2012 For Dummies*, 1st Ed., For Dummies [ISBN: 9781118024409]**
- **Donnie Gladfelter 2011, *AutoCAD 2012 and AutoCAD LT 2012*, 1st Ed., Sybex [ISBN: 9781118016770]**
- **George Omura 2011, *Mastering AutoCAD 2012 and AutoCAD LT 2012*, Sybex [ISBN: 9780470952887]**
- **Scott Onstott 2011, *AutoCAD 2012 and AutoCAD LT 2012 Essentials*, 1st Ed., Sybex [ISBN: 9781118016794]**
- **Terence M. Shumaker, David A. Madsen, David P. Madsen 2011, *AutoCAD and Its Applications Basics 2012*, Goodheart-Willcox [ISBN: 9781605255613]**

**Article/Paper List**: This Course does not have any article/paper resources

**Other References**: This Course does not have any other resources