UNIVERSITI TEKNOLOGI MARA

CID471: CERAMIC CAID SURFACE MODELING

Course Name (English)	CERAMIC CAID SURFACE MODELING APPROVED
Course Code	CID471
MQF Credit	3
Course Description	This course will be focusing on various methods of producing ceramic surface modeling by using 2D and 3 D modeling software according to ceramic industry requirement. Assimilation from previous study on Adobe Photoshop and Adobe Illustrator design will be apply and convert onto 3 D modeling software on this course in right practical design process and sequence. Apart from that, this course will as well be discussing on practical understanding on the important of relief feature principals and elements towards embossed decoration according design process procedure.
Transferable Skills	3 D Modelling
Teaching Methodologies	Lectures, Lab Work, Demonstrations, Tutorial, Computer Aided Learning
CLO	CLO1 Differentiate relevant knowledge, attributes and skills in effective ways in accordance to the contexts of creative and innovative practices CLO2 Identifies the skills and principles of lifelong learning in their academic and career development within the specialized area as mention above CLO3 Explain the process of producing creative and innovative ceramic surface modeling by using 2 D and 3 D model design according to requirement in computer aided design application
Pre-Requisite Courses	No course recommendations

Topics
1. 1. Introduction to Ceramic CAID Surface Modelling 1.1) 1.1 Understand differences and similarities between solid bodies and surface bodies 1.2) 1.2 Familiar with various components of the graphical user interface (GUI)
2. 2. Extrude Surface & Trim Surface Features 2.1) 2.1 Project assignment 1 (Creating Extruded Surface, Trim Surface, Untrim Surface, Extruded Surface)
3. 3. Revolved Surface and Offset Surface 3.1) 3.1 Project Assignments 1b (Creating Extruded Surface, Trim Surface, Untrim Surface, Extruded Surface, Revolved Surface, Offset Surface)
4. 4. Lofted Surface & Swept Surface 4.1) 4.1 Project Assignments 2 (Creating Revolved Surface, Offset Surface, Lofted Surface, Swept Surface, 3D sketch)
5. 5. Planar Surface 5.1) 5.1 Project Assignments 3 (Creating Extruded Surface, Trim Surface, Extruded Surface, Revolved Surface, Offset Surface, Lofted Surface, Swept Surface, Planar Surface)
6. 6. Knit Surface 6.1) 6.1 Project Assignments 3b (Creating Extruded Surface, Trim Surface, , Extruded Surface, Revolved Surface, Offset Surface, Lofted Surface, Swept Surface, Planar Surface, Knit Surface)
7. 7. Test 1 7.1) N/A
8. 8. Ruled Surface & Boundary Surface 8.1) 8.1 Project Assignments 4 (Ruled Surface & Boundary surface)

9. 9. Filled Surface, Mid Surface, Delete Face & Replace Face 9.1) 9.1 Project Assignments 5 (Creating Extruded Surface, Trim Surface, Extruded Surface, Revolved Surface, Offset Surface, Lofted Surface, Swept Surface, Planar Surface, Knit Surface Filled Surface, Mid Surface, Delete face, Replace face)
10. 10. Split line & Project Curve 10.1) 10.1 Project Assignments 6 (Creating Thicken, Boundary cut, Thickened cut, , Fillet, Chamfer, Move/copy body, Freeform, Deform, Warp, Split line, Project curve, Composite curve, Curve through reference point, Helix and spiral)
11. 11. Freeform 11.1) 11.1 Project Assignments 6b (Creating Thicken, Boundary cut, Thickened cut, , Fillet, Chamfer, Move/copy body, Freeform, Deform, Warp
12. 12. Tableware Project 12.1) N/A
13. 13. Personal / Individual / Group Projects 13.1) N/A
14. 14. Test 2 14.1) N/A

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Project assignments require student to gain knowledge , attributes and skills to the current CAID software related to 'Knowledge'	60%	CLO1
Final Test	Produce design using solid and surface modelling to produce ceramic tableware to using CAID software related to 'Problem solving and scientific	20%	CLO3
Test	To ensure the student using the right commands and toolbars features in producing surface modeling design related to 'Social skills, Teamwork and Responsibilities '	20%	CLO2

Reading List

Reference Book Resources

- **James Leach 2016,** ***AutoCAD 2017 Instructor Perfect Paperback***
- **Randy Shih 2016,** ***AutoCAD 2017 Tutorial First Level 2D Fundamentals Perfect Paperback***
- **CADFolks 2016,** ***AutoCAD 2017 For Beginners Paperback***
- **2016,** ***AutoCAD 2017: Beginning and Intermediate Paperback***
- **Scott Onstott 2017,** ***AutoCAD 2017 and AutoCAD LT 2017: Essentials 1st Edition***
- **Cheryl R. Shrock, Steve Heather 2017,** ***Beginning AutoCAD 2017: Exercise Workbook Workbook Edition***
- **Terence M. Shumaker, David A. Madsen, David P. Madsen 2017,** ***AutoCAD and Its Applications Basics 2017 24th Edition***
- **CADArtifex 2016,** ***AutoCAD 2017: A Power Guide for Beginners and Intermediate Users***
- **Mark Dix, Paul Riley 2017,** ***Discovering AutoCAD 2017 1st Edition***
- **George Omura, Brian C. Benton 2017,** ***Mastering AutoCAD 2017 and AutoCAD LT 2017 1st Edition***
- **Gaurav Verma, Matt Weber 2016,** ***SolidWorks 2017 Black Book Paperback***
- **Paul Tran 2016,** ***SOLIDWORKS 2017 Basic Tools Perfect Paperback***
- **Paul Tran 2016,** ***SOLIDWORKS 2017 Advanced Techniques Perfect Paperback***
- **Paul Kurowski 2017,** ***Engineering Analysis with SOLIDWORKS Simulation 2017Perfect Paperback***
- **David Planchard 2017,** ***SOLIDWORKS 2017 Reference Guide Perfect Paperback***
- **Matt Lombard,** ***SolidWorks Surfacing and Complex Shape Modeling Bible 1st Edition***
- **CADCIM Technologies, Prof. Sham Tickoo 2017,** ***SOLIDWORKS 2017 for Designers Paperback***
- **CADArtifex 2017,** ***SOLIDWORKS 2017: A Power Guide for Beginners and Intermediate Users Paperback***
- **Matt Lombard 2013,** ***Solidworks 2013 Bible 1st Edition***
- **David Planchard 2017,** ***SOLIDWORKS 2017 Tutorial with Video Instruction Perfect Paperback***
- **William E. Howard, Joseph Musto 2017,** ***Introduction to Solid Modeling Using SolidWorks 2017 (Engineering Graphics) 13th Edition***

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources