

## EP1000 Digital Fabrication &amp; Prototyping Fundamentals

Assessments: 2022/2023

Name:

Admin No:

Website:

CA1 – Documentation/Website (20%)	Y/N	Score	Weightage	Total	Comments
Hosted website on GitHub and has:					
- navigation structure	Y	5	10%	10	
'- about page	Y	5	10%		
'- sections for topics	Y	5	10%		
'- documentation up to date	Y	5	10%		
- design aesthetic & UI layout	Y	5	10%		
CA2 – Digital Fabrication Skills (40%)	Y/N	Score	Weightage	Total	Comments
Project Management, Web Development (5%)					
- passed Fablab Safety Quiz	Y	5	10%	3	
'- work through git tutorial	Y	5	10%		
- build personal website	Y	5	10%		
- describe final project	Y	5	10%		
'- document process(es) used in creating website	Y	5	10%		
3D CAD (5%)					
- complete all (7) in class 3D CAD exercises	Y	35	70%	3	10% will be deducted for every missing exercises
'- document use of 3D design software	Y	5	10%		
- document and embed 3D model into website	Y	5	10%		
'- include original design file(s)	Y	5	10%		
3D Printing (10%)					
- test design rules: 3D print a chess piece	Y	15	30%	5	
- Assignment - design & 3D print a handphone stand	Y	25	50%		
- document your work into website	Y	5	10%		
'- included original design file(s)	Y	5	10%		
2D Graphics & Computer Controlled Cutting (10%)					
- document use of 2D raster graphic work	Y	2.5	5%	5	2.5% will be deducted for every missing exercises
- document use of 2D raster vector work	Y	2.5	5%		
- complete all (2) in class 2D vector exercises	Y	2.5	5%		
- design a parametric press-fit laptop stand	Y	2.5	5%		
- complete Laser Cutting Basic Evaluation	Y	5	10%		
- Assignment - design & laser cut an accessory box	Y	25	50%		
-document your work into website	Y	5	10%		
'- included original design file(s)	Y	5	10%		
Embedded Programming w/Arduino (10%)					
- interface input/output devices to an embedded board	Y	2.5	5%	5	
- complete 7 segment LED timer in class exercise	Y	2.5	5%		
- write a program for a count down timer with 7 segment LED	Y	10	20%		
- Assignment - Arduino programming on assignment 12	Y	25	50%		
'- document your work	Y	5	10%		
'- included original source code files	Y	5	10%		
CA3 – Final Project (40%)	Y/N	Score	Weightage	Total	Comments
Module project requirements:					
- 2D & 3D designed parts with 2D & 3D software	Y	2.5	5%	20	
'- 3D printed part(s)	Y	2.5	5%		
'- laser cut part(s)	Y	2.5	5%		
'- embedded microcontroller board, e.g. arduino	Y	2.5	5%		
'- input device(s) that interacts with user	Y	2.5	5%		
'- output device(s) that interacts with the user	Y	2.5	5%		
Project Documentation:					
- include photos showing stages in development	Y	2.5	5%		
'- final product (hero shot)	Y	2.5	5%		
'- include all original design files	Y	5	10%		
'- include all original source code file(s)	Y	5	10%		
Project Presentation:					
- prepare 1 page poster (1920x1080) for presentation	Y	5	10%		
- prepare 1 min video (1920x1080)	Y	5	10%		
- documenting project development & final product	Y	5	10%		
- project completion/working prototype	Y	5	10%		
Total:				50	Final Total Score

Each section will be marked based on:

- '- incomplete, below requirements
- '- meets some requirements
- '- meets all requirements
- '- exceeds all requirements