

2022-2023 Spring Semester Maker Class Syllabus IP7A

Week	Date	Chapter / Activity	Lesson
1	02/13-02/18 02/13 First Day of Semester 02/18 Make up for 02/27	Introduction TinkerCAD: 3D Design – Step-by-Step Lesson	Welcome and Course Overview Lesson 1: Learning the Moves Lesson 2: Camera Controls Lesson 3: Creating Holes Lesson 4: Scale, Copy, and Paste
2	02/20-02/24	TinkerCAD: 3D Design – Exercises	Exercise 1: Chess Pawn Exercise 2: Balloon Powered Car
<u>3</u>	02/27-03/03 02/27-02/28 Peace Memorial Day 03/04 PTC	No school on February 27th, 2023	
4	03/06-03/10	Project: 3D Design + Laser Cutting – TinkerCAD	Step A1: Create/Generate a Maze Step A2: Make 3D Models of the Maze Base Step A3: Make 3D Models of the Maze Outer Walls
5	03/13-03/17	Project: 3D Design + Laser Cutting – TinkerCAD	Step A4: Make 3D Models of the Maze Inner Walls
6	03/20-03/25 03/25 Make up for 04/03	Project: 3D Design + Laser Cutting – TinkerCAD	Step A4: Make 3D Models of the Maze Inner Walls Step A5: Make 3D Models of the Maze Holder
7	03/27-03/31	Project: 3D Design + Laser Cutting – TinkerCAD & RDWorks	Step A6: Make 3D Models of the Maze Holder Stand Step A7: Number/Label the Parts
<u>8</u>	04/03-04/07 04/03-04/05 Children's Day & Tomb Sweeping Day	No school on April 3 <sup>rd</sup> , 2023	
9	04/10-04/14	Project: 3D Design + Laser Cutting – TinkerCAD & RDWorks	Step A8: Export for Laser Cutting Step A9: Laser Cut the Maze Parts
10	04/17-04/21	Project: 3D Design + Laser Cutting – 3D Maze	Step B1: Assemble the Maze Parts
11	04/24-04/28	Project: 3D Design + Laser Cutting – 3D Maze	Step B2: Assemble the Maze Holder
12	05/01-05/05	Project: 3D Design + Laser Cutting – 3D Maze	Step B3: Assemble the Maze Holder Stand
13	05/08-05/12	CSD Unit 6 – Physical Computing Chapter 1: Programming with Hardware	code.org – Lesson 3: The Circuit Playground code.org – Lesson 5: Board Events
14	05/15-05/19	CSD Unit 6 – Physical Computing Chapter 1: Programming with Hardware	code.org – Lesson 6: Getting Properties
15	05/22-05/26	CSD Unit 6 – Physical Computing Chapter 1: Programming with Hardware	code.org – Lesson 7: Analog Input
16	05/29-06/02	CSD Unit 6 – Physical Computing Chapter 1: Programming with Hardware	code.org – Lesson 10: Arrays and Color LEDs code.org – Lesson 12: Arrays For Loops
17	06/05-06/09	CSD Unit 6 – Physical Computing Chapter 2: Building Physical Prototypes	code.org – Lesson 13: Accelerometer
18	06/12-06/17 06/17 Make up for 06/23	Project: 3D Design + Circuits – 3D Maze	Step C1: Set up Circuit Playground + Circuitpython Step C2: Set up Mu Editor
<u>19</u>	06/19-06/23 06/22-06/23 Dragon Boat Festival	Project: 3D Design + Circuits – 3D Maze	Step C3: Write the Code Step C4: Assemble the Circuit Step C5: Test the Code
20	06/26-06/30 06/30 Last Day of Semester	Project: 3D Design + Circuits – 3D Maze	Course Wrap-up and Reflection