Course Title	BASIC TRAINING OF DIGITAL CONTENT PRODUCTION	Instructor	YI-LUNG LIN
Course Class	TDTXB2A DEPARTMENT OF EDUCATIONAL TECHNOLOGY, 2A	Details	◆ General Course ◆ Selective ◆ One Semester
Relevance to SDGs	SDG4 Quality education		

Departmental Aim of Education

The department of educational technology aims to equip students with skills in integrating relevant pedagogical theories into e-Learning, instructional materials development, and project management.

Subject Departmental core competences

C. Students will be able to develop multiple types of digital materials.(ratio:60.00)

D. Students will be able to acquire the ability related to basic computer programming. (ratio:30.00)

F. Students will be able to evaluate each type of digital materials.(ratio:10.00)

Subject Schoolwide essential virtues

2. Information literacy. (ratio:50.00)

5. Independent thinking. (ratio:50.00)

Course Introduction	Promote the implementation of maker education and practical interactive learning device: the course content is combined with maker digital tools (laser cutting machine, CNC engraving machine, 3D printer and 3D scanner) for interactive learning device planning, design and production Out.

The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

 I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of
          the course's veracity, conception, procedures, outcomes, etc.
II. Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal,
          morals, attitude, conviction, values, etc.
III. Psychomotor: Emphasis upon the study of the course's physical activity and technical
          manipulation.

No.	Teaching Objectives	objective methods
1	It is used to certify the operation of digital tools for Makers, and test the completeness of each learner's operating equipment skills.	Psychomotor
2	To explain the programming of the development version and the sensor and provide learners with repeated practice mechanisms.	Psychomotor
3	Teaching uses the ability to solve complex problems, critical thinking skills, creativity, communication skills and teamwork skills. Group discussions are conducted to discuss the design of the visually impaired interactive learning device.	Cognitive
4	Enhance the value and belief in BASIC TRAINING OF DIGITAL CONTENT PRODUCTION	Affective

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	CDF	25	Discussion, Publication, Experience	Testing
2	CDF	25	Publication, Practicum	Testing, Discussion(including classroom and online)
3	CDF	25	Publication, Experience	Testing
4	CDF	25	Publication, Practicum	Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	110/02/22 ~ 110/02/28	1 Learn about maker education and tool introduction 2 Discuss the importance of friendly and equal rights design	

2	110/03/01 ~ 110/03/07	1. Instructions for using 2D images on the laser cutting machine 2. Operation guide for mine cutting machine 3. The principle of visually impaired interaction: tactile mechanism	
3	110/03/08 ~ 110/03/14	1. Instructions for using 3D model on CNC engraving machine 2. CNC engraving machine operation guide 3. The principle of visually impaired interaction: auditory mechanism	
4	110/03/15 ~ 110/03/21	1.3D printer and 3D scanner 3D model use skills description 2.3D scanner operation guide 3.3D Printer Operation Guide	
5	110/03/22 ~ 110/03/28	1.2D image is used for mine cutting machine operation certification 2.3D model used for CNC engraving machine operation certification 3.3D model is used for 3D printer and 3D scanner operation certification	
6	110/03/29 ~ 110/04/04	1. Know the development version and the sensor 2. Development version and sensor in education application 3. Basic concepts of electronics	
7	110/04/05 ~ 110/04/11	1. Button interactive project 2. RFID sensor project	
8	110/04/12 ~ 110/04/18	1. Infrared sensor project 2 Ultrasonic Sensor Project	
9	110/04/19 ~ 110/04/25	1. Servo motor project 2. Buzzer/Voice Player Project	
10	110/04/26 ~ 110/05/02	Midterm Exam Week	
11	110/05/03 ~ 110/05/09	1. Visit the Danhai Affair Museum 2. Observation can be made into the hull category of the visually impaired interactive learning system 3. Discuss the location and space placement of the curatorial planning	
12	110/05/10 ~ 110/05/16	1. Know educational toys 2. Explore the impact of educational toys on learning 3. Fun and interactive design planning of the hull model	
13	110/05/17 ~ 110/05/23	1. Mechanism Principles of Interactive Design 2. Implementation of educational toy design skills 3. Design of interactive learning device for the visually impaired	
14	110/05/24 ~ 110/05/30	1. Development of an interactive learning device for the visually impaired 2. Patent concept guidance	
15	110/05/31 ~ 110/06/06	1. Development of an interactive learning device for the visually impaired 2. Patent concept guidance	

16	110/06/07 ~ 110/06/13	1. Publish the curatorial field test 2. Feedback from visually impaired users	
17	110/06/14 ~ 110/06/20	1. Feedback improvement 2. Patent amendment	
18	110/06/21 ~ 110/06/27	Final Exam Week	

Requirement	1. Absenteeism is subject to the teacher's call, and failure to call will be regarded as an absence. 2. Students applying for leave must go through the procedures for applying for leave in accordance with the rules for applying for leave. After applying for leave, they must apply for leave with the official school leave slip within two weeks. Failure to comply with the regulations will be regarded as absenteeism. 3. A total of 5 points will be deducted for the first time of absenteeism. In addition, the test will be deducted for more than three times before the mid-term exam, and five times before the final exam. The semester score of the subject will be calculated as zero. 4. The teacher reserves the right to change the assignment items, assignment content, and assignment grading ratio. 5. Observe the basic etiquette in the classroom 6. Please do not submit late work and final report 7. Do not plagiarize the content of the work. Please respect the intellectual property rights of the pictures and texts. 8. Interactive discussion, pay attention to the use of words and words, do not abuse and personal attacks.
Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	Refer to https://drive.google.com/drive/folders/1TEyxJJnjKqOhbY_yg7MVaK2WfheOs6zm?usp=sharing
References	Refer to https://drive.google.com/drive/folders/1TEyxJJnjKqOhbY_yg7MVaK2WfheOs6zm?usp=sharing
Number of Assignment(s)	8 (Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 10.0 % ◆ Mark of Usual：40.0 % ◆ Midterm Exam： 25.0 % ◆ Final Exam： 25.0 % ◆ Other〈 〉： %
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php . **※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**