

## Tamkang University Academic Year 111, 2nd Semester Course Syllabus

Course Title	BASIC TRAINING OF DIGITAL CONTENT PRODUCTION	Instructor	YI-LUNG LIN
Course Class	TDTXB2A DEPARTMENT OF EDUCATIONAL TECHNOLOGY, 2A	Details	<ul style="list-style-type: none"> <li>◆ General Course</li> <li>◆ Selective</li> <li>◆ One Semester</li> </ul>
Relevance to SDGs	SDG4 Quality education		
<b>Departmental Aim of Education</b>			
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.			
<b>Subject Departmental core competences</b>			
<p>A. Students will be able to apply knowledge and skills related to instructional design. (ratio:10.00)</p> <p>B. Students will be able to analyze educational data.(ratio:5.00)</p> <p>C. Students will be able to develop multiple types of digital materials.(ratio:30.00)</p> <p>D. Students will be able to acquire the ability related to basic computer programming. (ratio:30.00)</p> <p>E. Students will be able to strengthen knowledge and skills related to planning, organizing, and implementation in human resource development (HRD).(ratio:5.00)</p> <p>F. Students will be able to evaluate each type of digital materials.(ratio:20.00)</p>			
<b>Subject Schoolwide essential virtues</b>			
<p>1. A global perspective. (ratio:5.00)</p> <p>2. Information literacy. (ratio:30.00)</p> <p>3. A vision for the future. (ratio:5.00)</p> <p>4. Moral integrity. (ratio:5.00)</p> <p>5. Independent thinking. (ratio:30.00)</p> <p>6. A cheerful attitude and healthy lifestyle. (ratio:5.00)</p> <p>7. A spirit of teamwork and dedication. (ratio:10.00)</p> <p>8. A sense of aesthetic appreciation. (ratio:10.00)</p>			

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, 3D printer or Arduino board and sensors) for interactive learning device planning, design and production. The course implements digital learning devices by Display technology. Through exhibitions, learners can present and promote their works.
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**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	ABCDEF	27	Discussion, Publication, Experience	Testing
2	ABCDEF	27	Publication, Practicum	Testing, Discussion(including classroom and online)
3	ABCDEF	27	Publication, Experience	Testing

4	ABCDEF	12345678	Publication, Practicum	Discussion(including classroom and online), Report(including oral and written)
Course Schedule				
Week	Date	Course Contents		Note
1	112/02/13 ~ 112/02/19	Maker education and digital tools introduction		
2	112/02/20 ~ 112/02/26	Digital interactive device and display technology(exhibition site visit)		
3	112/02/27 ~ 112/03/05	Laser cutting machine operation and design of digital interactive device I		
4	112/03/06 ~ 112/03/12	Laser cutting machine operation and design of digital interactive device 2		
5	112/03/13 ~ 112/03/19	3D printer machine operation and design of digital interactive device I		
6	112/03/20 ~ 112/03/26	3D printer machine operation and design of digital interactive device II		
7	112/03/27 ~ 112/04/02	Discussion of digital interactive device design and planning		
8	112/04/03 ~ 112/04/09	No Class		
9	112/04/10 ~ 112/04/16	Curation I of Digital Interactive Device		
10	112/04/17 ~ 112/04/23	Midterm Exam Week		
11	112/04/24 ~ 112/04/30	1. Know the development version and the sensor 2. Development version and sensor in education application 3. Basic concepts of electronics		
12	112/05/01 ~ 112/05/07	1. Button interactive project 2. RFID sensor project 3. Infrared sensor project 4 Ultrasonic Sensor Project		
13	112/05/08 ~ 112/05/14	ICT Conference		
14	112/05/15 ~ 112/05/21	1. Servo motor project 2. Buzzer/Voice Player Project		
15	112/05/22 ~ 112/05/28	Discussion of sensor-based digital interactive device design and planning		
16	112/05/29 ~ 112/06/04	Curation II of Digital Interactive Device		
17	112/06/05 ~ 112/06/11	1. Feedback improvement 2. Patent amendment		
18	112/06/12 ~ 112/06/18	Final Exam Week		

Requirement	<ol style="list-style-type: none"> <li>1. Absenteeism is subject to the teacher's call, and failure to call will be regarded as an absence.</li> <li>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.</li> <li>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.</li> <li>4. The teacher reserves the right to change the assignment items, assignment content, and assignment grading ratio.</li> <li>5. Observe the basic etiquette in the classroom</li> <li>6. Please do not submit late work and final report</li> <li>7. Do not plagiarize the content of the work. Please respect the intellectual property rights of the pictures and texts.</li> <li>8. Interactive discussion, do not abuse and personal attacks.</li> </ol>
Teaching Facility	Computer, Projector
Textbooks and Teaching Materials	<a href="https://drive.google.com/drive/folders/1ZPGwyxRPNwfvNdbHN7GetyYpqbADm6VD?usp=share_link">https://drive.google.com/drive/folders/1ZPGwyxRPNwfvNdbHN7GetyYpqbADm6VD?usp=share_link</a>
References	<a href="https://drive.google.com/drive/folders/1ZPGwyxRPNwfvNdbHN7GetyYpqbADm6VD?usp=share_link">https://drive.google.com/drive/folders/1ZPGwyxRPNwfvNdbHN7GetyYpqbADm6VD?usp=share_link</a>
Number of Assignment(s)	12 (Filled in by assignment instructor only)
Grading Policy	<ul style="list-style-type: none"> <li>◆ Attendance : 30.0 %</li> <li>◆ Mark of Usual : 30.0 %</li> <li>◆ Midterm Exam : %</li> <li>◆ Final Exam : 20.0 %</li> <li>◆ Other (Curriculum I) : 20.0 %</li> </ul>
Note	<p>This syllabus may be uploaded at the website of Course Syllabus Management System at <a href="http://info.ais.tku.edu.tw/csp">http://info.ais.tku.edu.tw/csp</a> or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a>.</p> <p><b>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</b></p>