

## Tamkang University Academic Year 113, 2nd Semester Course Syllabus

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| Course Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2D GRAPHICS DESIGN AND ANIMATION<br>PRODUCTION                                                              | Instructor | YI-LUNG LIN                                                     |
| Course Class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | TDTXB1A<br>DEPARTMENT OF EDUCATIONAL TECHNOLOGY,<br>1A                                                      | Details    | ◆ Blended Course<br>◆ Required<br>◆ One Semester<br>◆ 3 Credits |
| Relevance<br>to SDGs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SDG4 Quality education<br>SDG9 Industry, Innovation, and Infrastructure<br>SDG17 Partnerships for the goals |            |                                                                 |
| D e p a r t m e n t a l   A i m   o f   E d u c a t i o n                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                             |            |                                                                 |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                             |            |                                                                 |
| A. Students will be able to apply knowledge and skills related to instructional design.<br>(ratio:20.00)<br>B. Students will be able to analyze educational data.(ratio:10.00)<br>C. Students will be able to develop multiple types of digital materials.(ratio:30.00)<br>D. Students will be able to acquire the ability related to basic computer programming.<br>(ratio:5.00)<br>E. Students will be able to strengthen knowledge and skills related to planning, organizing,<br>and implementation in human resource development (HRD).(ratio:5.00)<br>F. Students will be able to evaluate each type of digital materials.(ratio:30.00) |                                                                                                             |            |                                                                 |
| Subject Schoolwide essential virtues                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                             |            |                                                                 |
| 1. A global perspective. (ratio:5.00)<br>2. Information literacy. (ratio:30.00)<br>3. A vision for the future. (ratio:5.00)<br>4. Moral integrity. (ratio:5.00)<br>5. Independent thinking. (ratio:15.00)<br>6. A cheerful attitude and healthy lifestyle. (ratio:5.00)<br>7. A spirit of teamwork and dedication. (ratio:15.00)<br>8. A sense of aesthetic appreciation. (ratio:20.00)                                                                                                                                                                                                                                                       |                                                                                                             |            |                                                                 |

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| Course Introduction | Digitalization of media is a trend of the world, and its importance drives the development of related industries and changes in life. With the progress of computer technology, 2D drawing and animation production are becoming more and more popular. This course is based on AE software to teach animation design methods and special effects processing techniques. It also integrates AE animation with AR augmented reality materials to enrich the animation effects and learning interactive mechanisms of digital materials. |
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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   | Students can analyze the design methods of various types of animation                           | Cognitive         |
| 2   | Students can clarify and be proficient in the principles and techniques of animation production | Psychomotor       |
| 3   | Students can cultivate artistic beauty and use them in the design of teaching materials         | Affective         |

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

| No. | Core Competences | Essential Virtues | Teaching Methods               | Assessment                                                                                                                                    |
|-----|------------------|-------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ABCDEF           | 12345678          | Lecture, Discussion, Practicum | Testing, Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written), Activity Participation |
|     |                  |                   |                                |                                                                                                                                               |

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|---|--------|----------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | ABCDEF | 12345678 | Lecture, Discussion, Publication, Practicum | Testing, Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written), Activity Participation |
| 3 | ABCDEF | 12345678 | Lecture, Discussion, Publication, Practicum | Testing, Study Assignments, Discussion(including classroom and online), Practicum, Report(including oral and written), Activity Participation |

### Course Schedule

| Week | Date                     | Course Contents                                                    | Note                            |
|------|--------------------------|--------------------------------------------------------------------|---------------------------------|
| 1    | 114/02/17 ~<br>114/02/23 | Syllabus   Introduction                                            |                                 |
| 2    | 114/02/24 ~<br>114/03/02 | 1. Chatgpt/Raphael Ai image generation 2. Comic script design      |                                 |
| 3    | 114/03/03 ~<br>114/03/09 | 1. Comic script design 2. Comic generation design                  |                                 |
| 4    | 114/03/10 ~<br>114/03/16 | Leonardo.ai Generates Technology Basics Tutorial                   |                                 |
| 5    | 114/03/17 ~<br>114/03/23 | Leonardo.ai advanced tutorial on generative technology             | Online Asynchronous Instruction |
| 6    | 114/03/24 ~<br>114/03/30 | 1. AI Runway Gen2 2. Music Generation                              |                                 |
| 7    | 114/03/31 ~<br>114/04/06 | No Class                                                           | Spring Holiday                  |
| 8    | 114/04/07 ~<br>114/04/13 | 1. AI image generation software review 2. MywebAR                  | Online Asynchronous Instruction |
| 9    | 114/04/14 ~<br>114/04/20 | Midterm Work Discussion                                            |                                 |
| 10   | 114/04/21 ~<br>114/04/27 | Satoyama and Satokai Day School                                    | Off-campus teaching             |
| 11   | 114/04/28 ~<br>114/05/04 | AE I displacement, rotation, scaling, transparency,mask processing |                                 |
| 12   | 114/05/05 ~<br>114/05/11 | AE II Skeleton Processing, Green Screen Back Removal               |                                 |
| 13   | 114/05/12 ~<br>114/05/18 | AE III Camera uses zoom in to create depth of field effect         |                                 |
| 14   | 114/05/19 ~<br>114/05/25 | Discusstion of AR Animation Book about Tamsui Satoyama and Satokai |                                 |
| 15   | 114/05/26 ~<br>114/06/01 | AE Rewiew  AR Animation Book                                       | Online Asynchronous Instruction |

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| 16                               | 114/06/02 ~<br>114/06/08 | Production of AR Animation Book about Tamsui Satoyama and Satokai                                                                                                                                                                                                                                                                                                         | Online Asynchronous Instruction |
| 17                               | 114/06/09 ~<br>114/06/15 | Final Exam/Final Assessment Week (teachers can adjust the week as needed)                                                                                                                                                                                                                                                                                                 | Off-campus teaching             |
| 18                               | 114/06/16 ~<br>114/06/22 | Flexible Teaching Week: Generally, no in-person classes; teachers may arrange teaching activities or final assessments, among other options.                                                                                                                                                                                                                              |                                 |
| Key capabilities                 |                          | self-directed learning                                                                                                                                                                                                                                                                                                                                                    |                                 |
| Interdisciplinary                |                          | STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist)                                                                                                                                                                                                                                                                    |                                 |
| Distinctive teaching             |                          | USR curriculum<br>Learning technologies (such as AR/VR,etc.) incorporated to physical courses                                                                                                                                                                                                                                                                             |                                 |
| Course Content                   |                          | Computer programming or Computer language (students have hands-on experience in related projects)                                                                                                                                                                                                                                                                         |                                 |
| Requirement                      |                          | 1.必修、選修、加簽、退選，相關規定務必清楚！可參閱教務處網站。<br>2.曠課以老師點名為準，點名不到即視為曠課。遲到2次視為曠課。<br>3.學生請假須依學生請假規則辦理請假手續，請假後須於2天內以學校正式假條請假。若未依規定辦理，視為曠課。<br>4.曠課第一次扣總分10分，期中考前超過2次為扣考，期末考前超過為3次扣考。扣考該科目之學期成績以零分計算。<br>5.期中考試/報告與期末考試/報告與所有考試應考相關規定請參照校方說明。<br>6.老師保留變更作業項目、作業內容及作業評分比例的權力。<br>7.遵守學生基本禮儀，勿直呼教師姓名與注意穿著儀容等相關事項。<br>8.平時作業請勿逾期繳交。<br>9.作業內容勿抄襲，圖文請尊重智產權。<br>10.課室與線上互動討論，注意用詞言語，勿謾罵與人身攻擊。 |                                 |
| Textbooks and Teaching Materials |                          | Self-made teaching materials:Presentations<br>Using teaching materials from other writers:Presentations                                                                                                                                                                                                                                                                   |                                 |
| References                       |                          | <a href="https://drive.google.com/drive/folders/19AoSf2sswRGniW9sAVjcWKupnG_tuWoO?usp=share_link">https://drive.google.com/drive/folders/19AoSf2sswRGniW9sAVjcWKupnG_tuWoO?usp=share_link</a>                                                                                                                                                                             |                                 |
| Grading Policy                   |                          | ◆ Attendance：10.0 %    ◆ Mark of Usual：40.0 %    ◆ Midterm Exam：20.0 %<br>◆ Final Exam：30.0 %<br>◆ Other 〈 〉： %                                                                                                                                                                                                                                                           |                                 |
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| 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> |
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