



**TQE.3**

### **Course Specification**

<b>Suan Sunandha Rajabhat University</b>
<b>College of Communication Arts</b> <b>Major in Cinematic Arts (International Program)</b>

#### **Section 1 General Information**

<b>1. Course ID :</b>	CDD2405
<b>2. Course Title :</b>	<b>Virtual Reality and Augmented Reality Design</b>
<b>3. Credit :</b>	3(2-2-5)
<b>4. Curriculum :</b>	Bachelor of Fine Arts in Creativity and Digital Media (International Program)
<b>5. Type of subject :</b>	Creativity and Digital Media Major Elective Course
<b>6. Responsible lecturer :</b>	Assistant Professor Dr. Tawipas Pichaichanarong
<b>7. Contact Address :</b>	College of Communication Arts
<b>8. Email :</b>	lecturertawipas@aliyun.com
<b>9. Semester :</b>	Semester 2/ 2022
<b>10. Year Level of Students :</b>	3rd Year Students

<b>11. Pre-requisite :</b> -
<b>12. Co-requisite :</b> -
<b>13. Learning Location:</b> Onsite : College of Communication Arts, Suan Sunandha Rajabhat University, Nakornphathom Campus

<b>14. Late Date for Course Preparing and Revising :</b> 23/11/2022
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**Section 2 Aim and Objective**

<b>1. Objectives of Course :</b> 1.1 To understand VR/AR 1.2 To create VR Environment and AR images
<b>2. Objectives of Developing/Revising Course :</b> -

**Section 3 Course Structure**

<b>1. Course Outline</b> This course is an introduction to the technology methods and history of virtual and augmented reality through the lens of art making. Students will learn to build virtual worlds gain an introduction to asset creation and become familiar with the toolsets and work flows needed to make immersive experiences			
<b>2. Time Length per Semester (Lecture-Hours / Practice-Hours / Self Study-Hours)</b>			
<b>Lecture</b>	<b>Practice</b>	<b>Self-Study</b>	<b>Additional</b>
2hours per week	2hours per week	5hours per week	upon student request
<b>3. Time Length per Week for Individual Academic Consulting and Guidance</b> Lecture will be available every Monday from 13:00 to 17:00 at College of Communication Arts Lecturer can also be reached e-mail for any short consultations: Lecturer can also			

be reached for any consult via email [lecturertawipas@aliyun.com](mailto:lecturertawipas@aliyun.com)

#### **Section 4 The Students Learning Outcome Development**

<b>1. Morals and Ethics</b>
<b>Morals and Ethics to be developed</b> Be able to deliver or to complete a required task at or the appointed time.
<b>Teaching Strategies</b> (1) Help remind other team members to be on time. (2) Provide an example of integrity in classroom such as no plagiarism.
<b>Evaluation Strategies</b> (1) Check student attendance every class. (2) Evaluate from how many students cheating in exam. (3) Evaluate from students' responsibility on their contribution on group project.
<b>2. Knowledge</b>
<b>Knowledge to be Acquired</b> 1. Can apply knowledge in real working time 2. Dare to use creativity that's profit for film production development 3. Understand in working process rightly in standard
<b>Teaching Strategies</b> (1) Use both Student-centered learning and Problem-based learning. (2) Use cooperative learning techniques. (3) Invite guest speaker who is an expert in real world filmmaking, performing arts or media making.

<p><b>Evaluation Strategies</b></p> <p>(1) Pop-quiz, midterm, and final exam  (2) single / group projects  (3) Class Presentation</p>
<p><b>3. Cognitive Skills</b></p>
<p><b>Cognitive Skills to be acquired</b></p> <p>1. Can apply theoretical section and practical part to film production  2. Can analyze situations in film production</p>
<p><b>Teaching Strategies</b></p> <p>(1) Group Presentations  (2) Participate in real film production such as working with production crew.  (3) Student-centered learning and Problem-based learning</p>
<p><b>Evaluation Strategies</b></p> <p>(1) Pop-quiz, midterm, and final exam  (2) single / group projects  (3) Class Presentation</p>
<p><b>4. Interpersonal Skills and Responsibilities</b></p>
<p><b>Interpersonal Skills and Responsibility to be Developed</b></p> <p>Be able to solve filmmaking, performing arts or media problems.</p>
<p><b>Teaching Strategies</b></p> <p>(1) Allow students to work in unfamiliar situation with new team members.  (2) Practice filmmaker, performing artist or media maker manner and how to deal with customers.  (3) Use advanced English to communicate in class and with lecturers.</p>

<p><b>Evaluation Strategies</b></p> <p>(1) How students participate in teamwork.</p> <p>(2) How students use advanced English in their presentation.</p>
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<p><b>5. Numerical Analysis, Communication and Information Technology Skills</b></p>
<p><b>Numerical Analysis, Communication and Information Technology Skills to be Developed</b></p> <p>Be able to use basic ICT skills and apply them to daily life.</p>
<p><b>Teaching Strategies</b></p> <p>(1) Use case studies that allow students to implement their knowledge of statistics and mathematics to solve filmmaking, performing arts or media making problems. (2) Use activities such as encouraging students to show their work in an exhibition. (3) Students will form a team and do the group projects that require two-ways communication and develop their social skills.</p>
<p><b>Evaluation Strategies</b></p> <p>(1) Evaluate the correct application of statistics and mathematics to solve problems.</p> <p>(2) Evaluate their ability to present their work in at an exhibition.</p> <p>(3) Evaluate their ability to use software computer related to film, performing arts or media doing their work.</p>

**Section 5: Teaching Schedule and Evaluation**

**1. Teaching Schedule**

Week	Topic and Detail	Hours	Activity and Media	Lecturer(s)
1	- Course Orientation - Introduction for VR/AR	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a>	<u>Assistant Professor Dr. Tawipas Pichaichanarong</u>

2	- Preproduction for Game Engine	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips - Group Discussion - Assignment	Assistant Professor Dr. Tawipas  Pichaichanarong
3	- VR add-on for Game Engine	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips - Workshop - Group Discussion -Single Presentation - Assignment	Assistant Professor Dr. Tawipas  Pichaichanarong
4	- Creating Environment	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips - Workshop - Group Discussion -Single Presentation - Assignment	Assistant Professor Dr. Tawipas  Pichaichanarong
5	-Player and Controler	3	- On-demand lesson “Walter Murch’s : Rules of Six”	Assistant Professor Dr. Tawipas  Pichaichanarong

			<a href="https://www.youtube.com/watch?v=q2WGP4dofgQ">https://www.youtube.com/watch?v=q2WGP4dofgQ</a> <a href="https://www.youtube.com/watch?v=9_KOfYrxcF4&amp;t=549s">https://www.youtube.com/watch?v=9_KOfYrxcF4&amp;t=549s</a> <a href="https://www.youtube.com/watch?v=xUK64UkTmW0&amp;t=291s">https://www.youtube.com/watch?v=xUK64UkTmW0&amp;t=291s</a> - Assignment (MATCHING ACTION)	
6	- Basic Interactive	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips - Workshop - Group Discussion -Single Presentation (MATCHING ACTION) - Assignment (CAR CHASING)	Assistant Professor Dr. Tawipas  Pichaichanarong
7	- VR Application Build	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips - Workshop - Group Discussion -Single Presentation (CAR CHASING) - Assignment (L – CUT / SPLIT EDIT)	Assistant Professor Dr. Tawipas  Pichaichanarong
<b>8</b>	<b>Mid-term Examination</b>			
9	- Basic AR application	3	- On-demand lesson “Editing for Genres”	Assistant Professor Dr. Tawipas  Pichaichanarong

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			<p><a href="https://www.youtube.com/watch?v=HNrhYpNJjfU">https://www.youtube.com/watch?v=HNrhYpNJjfU</a>  <a href="https://www.youtube.com/watch?v=Mt7HZX2caAs">https://www.youtube.com/watch?v= Mt7HZX2caAs</a>  <a href="https://www.youtube.com/watch?v=y oSSayMA7Vs">https://www.youtube.com/watch?v=y oSSayMA7Vs</a>  <a href="https://www.youtube.com/watch?v=3 FOzD4Sfgag">https://www.youtube.com/watch?v=3 FOzD4Sfgag</a>  <a href="https://www.youtube.com/watch?v=4 Y9gIc3DnA8&amp;t=541s-Quiz">https://www.youtube.com/watch?v=4 Y9gIc3DnA8&amp;t=541s-Quiz</a></p>	
10	- Node System	3	<p>- Onsite / Online Lecture and Practice VDO conferencing  <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips          - Workshop          - Group Discussion          -Single Presentation (L – CUT / SPLIT EDIT)          - Assignment (HORROR SCENE)</p>	<p>Assistant Professor Dr. Tawipas Pichaichanarong</p>



11	- Using Color Look-up Table	3	<p>- On-demand lesson          “Shooting for The Edit”  <a href="https://www.youtube.com/watch?v=fzQrplZRYio">https://www.youtube.com/watch?v=fzQrplZRYio</a>  <a href="https://www.youtube.com/watch?v=OKQ1APiB6r4">https://www.youtube.com/watch?v=OKQ1APiB6r4</a>  <a href="https://www.youtube.com/watch?v=VcorFuUmOBI">https://www.youtube.com/watch?v=VcorFuUmOBI</a>  <a href="https://www.youtube.com/watch?v=A1Yxs-kLAHk">https://www.youtube.com/watch?v=A1Yxs-kLAHk</a>  <a href="https://www.youtube.com/watch?v=83lrpsKcbqQ">https://www.youtube.com/watch?v=83lrpsKcbqQ</a></p>	<p>Assistant Professor Dr. Tawipas  Pichaichanarong</p>
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			-Assignment (SHOOT FOR EDIT)	
12	-Publishing AR Images	3	<p>- Onsite / Online Lecture and Practice VDO conferencing  <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a>          -Video Clips          - Workshop          - Group Discussion          -Single Presentation (SHOOT FOR EDIT)          - Assignment (MUSIC &amp; SOUND)</p>	<p>Assistant Professor Dr. Tawipas  Pichaichanarong</p>

13	-Final Project	3	- On-demand lesson “Editing for Documentary” <a href="https://www.youtube.com/watch?v=v dX0JkqzrAY">https://www.youtube.com/watch?v=v dX0JkqzrAY</a> <a href="https://www.youtube.com/watch?v=P sxd3ydYC2E">https://www.youtube.com/watch?v=P sxd3ydYC2E</a> <a href="https://www.youtube.com/watch?v=C OFpFGOSJV0&amp;t=1021s">https://www.youtube.com/watch?v=C OFpFGOSJV0&amp;t=1021s</a> -Assignment (DOCUMENTARY EDITING)	Assistant Professor Dr. Tawipas  Pichaichanarong
14	-Presentation/Discussion	3	- Onsite / Online Lecture and Practice VDO conferencing <a href="https://meet.google.com/eiv-yitb-nqg">https://meet.google.com/eiv-yitb-nqg</a> -Video Clips - Workshop - Group Discussion -Single Presentation (MUSIC & SOUND)	Assistant Professor Dr. Tawipas  Pichaichanarong
15	<b>Final Examination</b>			

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## 2. Learning Assessment Plan

Learning Outcomes	Assessment Activities	Time Schedule	Proportion of Assessment (%)
	Class Attendance	Every Week	10%
	Assignments and Quiz	Week2-7,9-16	50%
	Midterm Assignment	Week 8	20%
	Final Assignment	Week 17	20%

## Section 6 Learning and Teaching Resources

### 1. Major Textbook and documents

Mark Sawicki.(2011). *Filming the Fantastic: A Guide to Visual Effects Cinematography* . United States.

### 2. Text and documents

Scott Arundale. (2014). *Modern Post: Workflows and Techniques for Digital Filmmakers*. United States.

### 3. Recommended and Internet Resources

CINESTUDY : <https://cinestudy.org/>

Film Editing Pro

:<https://www.youtube.com/channel/UCkePWcrHz4q9y6kg5jvhWOw>

FilmmakerIQ : <https://www.youtube.com/user/FilmmakerIQcom>

## Section 7. Course Evaluation and Improvement

### 1.Strategies for Course Evaluation by Students

1.1 Explain to students to understand significance of subject development and students' roles in subject effectiveness evaluation as gain and loss people of program management 1.2Support subject effectiveness evaluation by students before and after studying 1.3 Create opinion sharing atmosphere about subject effectiveness between lecturer and students while studying

### 2.Strategies for Course Evaluation by Lecturer

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2.1 Evaluation majorly based on students' participation such as students' behaviors and participation consideration

2.2 Evaluation by lecturer's point of view such as teaching potential according to set teaching plan evaluation and teaching atmosphere consideration

2.3 Evaluation by students' scores

2.4 Evaluation of teaching by faculty's academic section

### **3. Teaching Revision**

3.1 Lecturer revises teaching/learning process based on the results from the students' Opinion, the lecturer team's observation, and classroom research.

### **4. Verification of student achievement standards**

4.1 Students' outcomes, group works' quality and single assignment the whole semester harmony consideration

4.2 Proper teaching management plan evaluation, teaching activities creation, giving assignments, evaluation and score assessment with subject description and program objectives

4.3 Cooperation with the next subject lecturer for previous subject evaluation

### **5. Course Review and Improvement Plan for Course Effectiveness**

5.1 Revise and develop course structure and process every two years.

5.2 Assign different lecturers to teach this course to enhance students' ability.

## **Section 8. Grading System**

<b>Score (%)</b>	<b>Grade</b>	<b>Meaning</b>	<b>Value</b>
<b>86-100</b>	<b>A</b>	<b>Exceptional</b>	<b>4.00</b>
<b>82-85</b>	<b>A-</b>	<b>Excellent</b>	<b>3.75</b>
<b>78-81</b>	<b>B+</b>	<b>Very Good</b>	<b>3.50</b>
<b>74-77</b>	<b>B</b>	<b>Good</b>	<b>3.00</b>
<b>70-73</b>	<b>B-</b>	<b>Fairly Good</b>	<b>2.75</b>
<b>66-69</b>	<b>C+</b>	<b>Satisfactory</b>	<b>2.50</b>
<b>62-65</b>	<b>C</b>	<b>Quite Satisfactory</b>	<b>2.00</b>
<b>58-61</b>	<b>C-</b>	<b>Low Satisfactory</b>	<b>1.75</b>
<b>54-57</b>	<b>D+</b>	<b>Poor</b>	<b>1.50</b>

<b>50-53</b>	<b>D</b>	<b>Very Poor</b>	<b>1.00</b>
<b>46-49</b>	<b>D-</b>	<b>Extremely Poor</b>	<b>0.75</b>
<b>0-45</b>	<b>F</b>	<b>Fail</b>	<b>0.00</b>
<b>-</b>	<b>W</b>	<b>Withdraw</b>	<b>-</b>