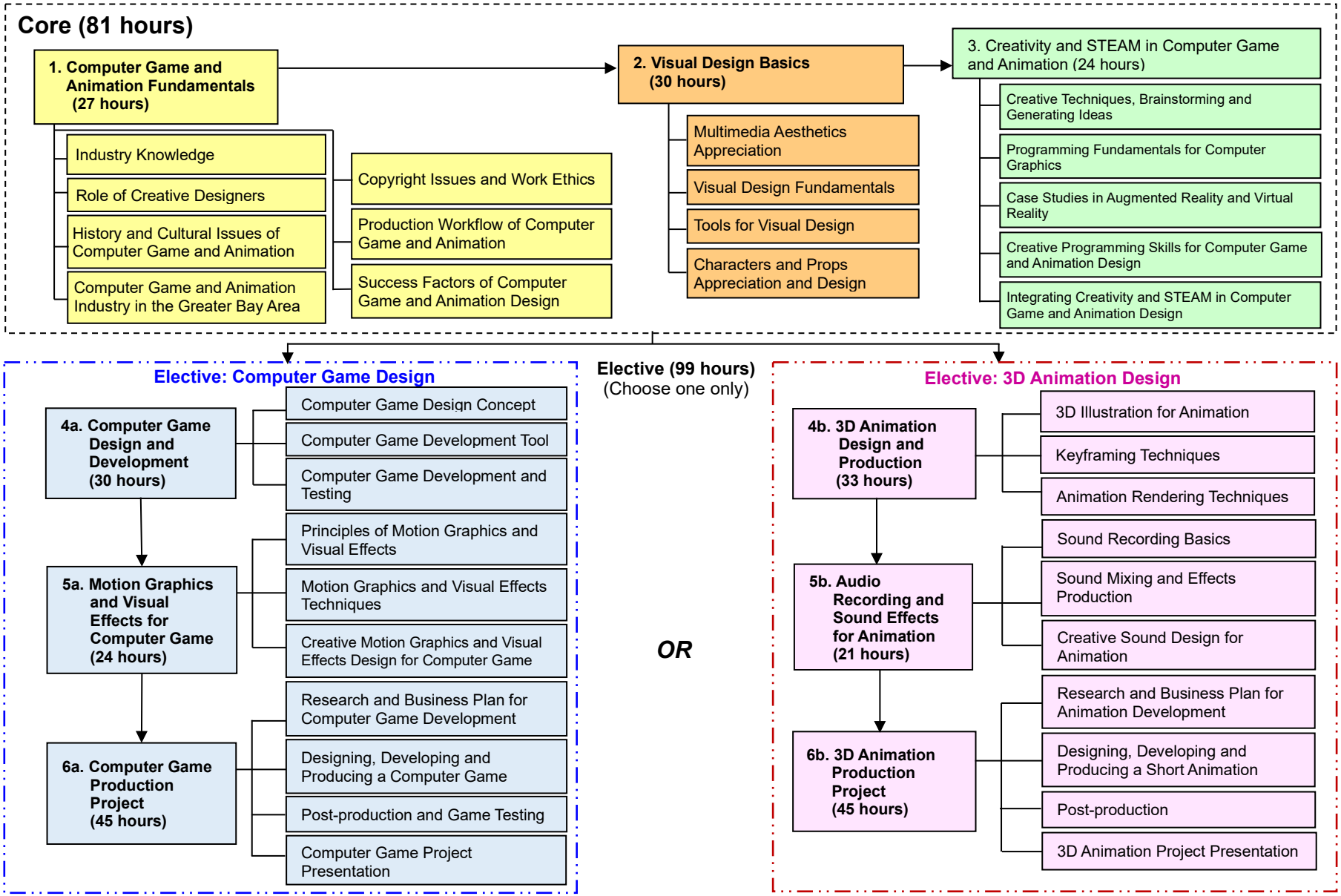
Applied Learning

2025-27 Cohort; 2027 HKDSE

Item	Description
1. Course Title	Computer Game and Animation Design
2. Course Provider	Vocational Training Council
3. Area of Studies/ Course Cluster	Creative Studies/ Media Arts
4. Medium of Instruction	Chinese or English
5. Learning Outcomes	Upon completion of the course, students should be able to: (i) identify the profile, responsibilities of practitioners and work ethics of the computer game and animation industry and its latest local and global development; (ii) evaluate and appreciate various media aesthetics elements and consolidate visual design skills in designing characters for computer game and animation; (iii) integrate creativity, STEAM-related concepts and programming skills in generating ideas for computer game and animation; (iv) apply digital media skills to various media designs to enhance computer game and animation design; (v) create and develop computer game and animation products through the integration of creativity, digital media literacy, project management skills and teamwork; and (vi) enhance self-understanding and explore directions on further studies and career pursuits.

* STEAM is an acronym that refers to the academic disciplines of Science, Technology, Engineering, the Arts and Mathematics collectively.

6. Curriculum Map – Organisation and Structure



7. The Context

- The information on possible further study and career pathways is provided to enhance students' understanding of the wider context of the specific Applied Learning course.
- The recognition of Applied Learning courses for admission to further studies and career opportunities is at the discretion of relevant institutions. Students who have successfully completed Applied Learning courses have to meet other entry requirements as specified by the institutions.

Possible further study and career pathways

Further studies

- e.g. courses related to computer game and animation, software engineering, cloud computing and data centre administration, digital entertainment and multimedia

Career development

- e.g. junior animators, assistant game designers, junior game programmers, assistant game artists, game testers

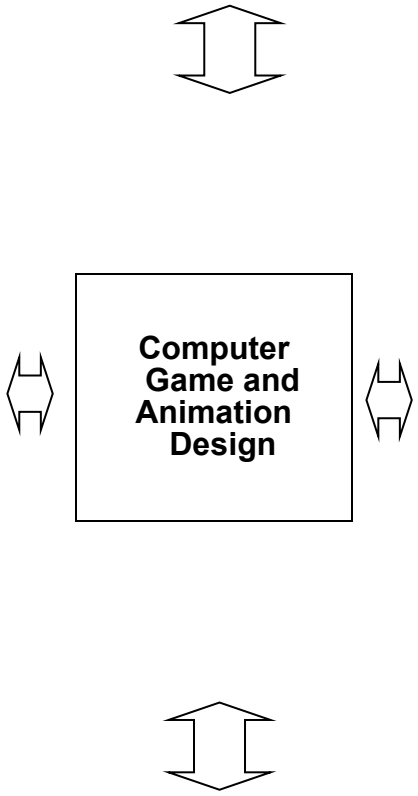
Complementarity with core subjects and other elective subjects

Enhancing and enriching**,** e.g.

- enhancing the depth and breadth of studies of **Information and Communication Technology**, such as the computing knowledge in digital graphics manipulations for animation and computing algorithms for game, through hands-on computer game and animation production activities, e.g. illustrating characters with vector graphics, assigning collision detection for game/animation objects
- enhancing the depth and breadth of studies of **Design and Applied Technology**, such as the visualisation concepts of dimensions of computer graphics, coordination systems and perspectives of objects, through hands-on computer game and animation production activities, e.g. designing the background of computer game/animation
- enhancing the depth and breadth of studies of **Visual Arts**, such as the aesthetics elements of game and animation in composition of graphics, characters and props design and visual effects appreciation, through computer game and animation design activities, e.g. designing characters and props by considering the form (e.g. symmetric/asymmetric) and colours (e.g. warm/cold colours)

Expanding horizons**,** e.g.

- students taking **Economics,** and/or **Business, Accounting and Financial Studies** can explore their different aptitudes and develop different intelligences through experiencing the workflow and acquiring latest knowledge of the computer game and animation industry, for holistic learning



Relations with other Areas of Studies/ courses of Applied Learning

e.g.

Creative Studies

- innovations developed from **Creative Studies** can enhance students' creative thinking skills for other courses e.g. **Fashion Image Design and Interior** and **Exhibition Design**

Media and Communication

- the knowledge of multimedia aesthetic appreciation can reinforce the learning of designing principle for courses under the area of studies of **Media and Communication** e.g. **Film and Transmedia**

Services

- the customer-focus concepts from the area of studies of **Services** can contribute to and be transferred to the customer service requirements in formulating business plan for computer game/animation development

Foundation knowledge developed in junior secondary education

The course is built upon the foundation knowledge students acquired in, e.g.

- **Chinese Language Education** and **English Language Education** – communication skills
- **Mathematics Education** – logics, measures, shape and space dimension
- **Technology Education** – fundamental knowledge of computer graphics, programming, computer hardware and software
- **Arts Education** – design considerations, critique and appreciation communication

8. Learning and Teaching

In this course, student-centred learning and teaching activities are designed to enable students to understand fundamental theories and concepts, develop their generic skills, and address their career aspirations in Computer Game and Animation Design.

Different modes of activities are employed to provide students with a systematic understanding about the context (e.g. lectures to grasp the overview of the computer game and animation industry, and fundamentals of computer game and animation productions) and eye-opening opportunities to experience the complexity of the context (e.g. visits to industry-related activities or exhibition venues such as computer game and animation shows, and sharing by industry professionals to widen exposure and to develop appreciation of various computer game and animation products).

Students acquire an understanding of the requirements, fundamental knowledge and skills essential for further learning within the area through learning-by-practising opportunities in an authentic or near-authentic environment (e.g. hands-on activities in character design for computer game and 3D illustration for animation with industry standard software and hardware, and STEAM-related activities to generate creativity in computer game and animation design).

Students are given opportunities to consolidate their learning and demonstrate entrepreneurship and innovation (e.g. the integrated project provides students with a learning opportunity to develop a computer game or animation from initial ideas generation; set-up of work schedule; effective application of the knowledge and skills in manipulating different digital media; and demonstration of analytical and critical thinking skills to evaluate the effectiveness and generate conclusion or recommendations for the product developed. The group project work allows students to demonstrate not only their collaborative and team building skills, but also enthusiasm, motivation, willingness to learn and ability to make improvement during the process of product development).

9. Curriculum Pillars of Applied Learning

Through related contexts, students have different learning opportunities, for example:

(i) Career-related Competencies

- describe the profile and characteristics of the computer game and animation industry;
- demonstrate a basic understanding of the work ethics of the computer game and animation industry and recgonise the workplace requirements and responsibilities of the practitioners, e.g. functions of different departments within a computer game and animation corporation and the role of individuals within the departments;
- demonstrate practical skills in manipulating different media, e.g. employ digital animation design techniques and industry standard software to create computer games;
- demonstrate creativity, critical thinking and problem-solving skills in creating computer games and animations;
- illustrate the ability in multimedia literacy and presenting ideas and views effectively; and
- identify the aptitudes and abilities required in computer game and animation industry and formulate the personal development plan for further studies, career planning and lifelong learning.

(ii) Foundation Skills

- demonstrate effective communication skills in a range of workplace tasks such as interpreting the user requirements using visual programming language with production team members who have different areas of expertise and other specialists in developing and finalising a production;
- employ mathematical skills in determining appropriate format of different digital media elements or transforming a digital media element between different industry standard formats; and
- apply information technology skills in making use of appropriate computer hardware and industry standard software in different streams to create and manipulate different digital media elements.

(iii) Thinking Skills

- apply analytical skills when discussing the nature of the computer game and animation industry, and how the corporations in the field achieve success;
- demonstrate creative thinking skills via the infusion of latest technology such as Augmented Reality/Virtual Reality in developing the concept for originating a project in the chosen elective stream (i.e. computer game or 3D animation);
- appreciate the benefits brought about by technological changes in the hardware and software associated with audio and visual effects; and
- apply problem-solving skills, decision-making skills and analytical skills in the process of planning, creating and producing computer games and animations.

(iv) People Skills

- demonstrate self-reflection skills and be receptive to advice or criticism upon receiving feedback from course tutors and classmates during various learning activities such as class exercises, practical assessments, group discussions and presentations;
- show self-management skills in reviewing progress and adjusting priorities to meet deadlines during the preparation for tests, project progress reports and project presentation; and
- employ interpersonal, collaborative and team building skills which are essential for designers in brainstorming, group sharing, group discussion and presentation.

(v) Values and Attitudes

- show honesty and integrity as well as respect for others and law and authority, e.g. identify the importance of originality, copyright and intellectual property rights especially in the planning, design and production of the project work;
- demonstrate proper attitude e.g. responsibility, enthusiasm and willingness to learn through the hands-on activities when they are engaged in the evolvement of the project from ideation to finished work;
- show curiosity and motivation in appreciating various computer game and animation works; and
- demonstrate self-confidence and self-esteem in presenting ideas during group discussions and presentations/performance.