

Applied Learning (Senior Secondary Level)

2016-18 Cohort

Learning and Teaching

Subject Title : **Aviation Studies**
Area of Studies : **Engineering and Production**
Course Provider : **School of Professional and Continuing Education, The University of Hong Kong**

In Aviation Studies, 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 the aviation industry.

Different modes of activities are employed to provide students with a systematic understanding about the context (e.g. lectures on the overview of the aviation industry in Hong Kong) and eye-opening opportunities to experience the complexity of the context (e.g. on-site visits to aviation organisations and regulatory bodies and seminars by industry practitioners).

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 and near-authentic environment (e.g. workshops under simulated working environment with industry grade tooling and real aircraft components).

Students are also encouraged to develop and apply conceptual, practical and reflective skills to demonstrate innovation and entrepreneurship (e.g. case studies to evaluate the impact of the aviation industry on the local economy and analyse the operation of aviation organisations). Students are given opportunities to integrate the knowledge and skills acquired and consolidate their learning (e.g. in the aviation project, students investigate authentic cases in aviation and suggest solutions. Students are expected to make use of the knowledge acquired and present their findings in a systematic way. In the process, students apply practical skills at industrial standard, demonstrate problem-solving skills through tackling aviation-related issues with multi-disciplinary knowledge, and prepare reports and a group presentation. During the project, students are also expected to demonstrate the positive values and attitudes required in the aviation industry).

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Curriculum Pillars of Applied Learning in Context – Aviation Studies

Upon completion of the subject, students should be able to:

- describe the functions and operation of various aviation organisations including airport authority and airlines;
- describe international regulations and standard requirements in the aviation industry;
- apply practical skills in the aviation industry;
- demonstrate problem-solving skills through tackling aviation-related issues with multi-disciplinary knowledge;
- appreciate the importance of teamwork and communication in the aviation industry;
- appreciate the latest development and achievements in engineering in related fields;
- describe the work ethics and demonstrate positive values and attitudes in the aviation industry; and
- develop self-understanding for further studies and career development in the related field.

Through the specific contexts related to the subject, students have different learning opportunities, for example:

1. Career-related Competencies

- understand the future development trend of the aviation industry through on-site visits and lectures by industry practitioners;
- explain the functions and operation of various aviation organisations; and
- enhance the understanding of industry competency requirements through practical exercises which are set according to the industry standard.

2. Foundation Skills

- strengthen language ability through reading relevant information on international aviation regulations which is usually written in English;
- strengthen communication skills both in verbal and written forms through working on on-site visit and project reports, presentations and role-play practices; and
- strengthen information technology skills through doing research and information collection for assignments and projects.

3. Thinking Skills

- integrate knowledge from different aspects including science, mathematics, geography and liberal studies, as well as knowledge of human biology and psychology covered in topics on aviation human factors;
- develop critical thinking skills and analytical skills through discussions on authentic aviation cases which will stimulate students' thinking and further the understanding of the competency required in the aviation industry;
- enhance thinking skills through participation in regular class activities including role-play, presentations and on-site visits; and
- develop skills in problem-solving and decision-making through project works which require information search and filtering, and results analysis and consolidation.

4. People Skills

- enhance team working skills and concept of division of work through group projects and role-play activities in class;
- develop skills in interpersonal communication and interaction through practising aviation services at industrial standard; and
- develop self-management skills through practice under simulated aviation work environment where students are required to follow industrial regulations and guidelines.

5. Values & Attitudes

- develop responsibility through understanding the high safety requirements in the aviation industry;
- develop concept of rights and obligations, and respect for safety of other people through experience sharing by guest speakers from the industry; and
- gradually develop self-confidence through successful completion of practical work with feedback by tutors.