



Education Bureau
Curriculum Support Division
Technology Education Section



Technology and Living Newsletter #5

Technology Education Key Learning Area

As one of the elective subjects at the senior secondary level, Technology and Living (TL) provides a progression of challenging experiences for students who wish to build on their knowledge base through in-depth study of the learning elements and concepts relating to food or clothing. Students have the option of selecting either Food Science and Technology strand or Fashion, Clothing and Textiles strand as their area of study.

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Ann LI

Master of Food Science - Cornell University, USA
Bachelor of Science (Food and Nutritional Science) -
University of Hong Kong

Speaking of the world I come from, I would say my world is full of food. Of course, I cannot deny that I'm a food lover, but I also love to play around with different ingredients and invent new food products. If you love food as much as I do, then you have to get to know more about food science, as that might be a career that you may want to pursue.

Before I share with you more about myself, let me tell you what food science is, as many of you may not have heard of it and may confuse food science with food and nutrition. Nutritionists and dieticians help people with their diets to maintain good health and prevent or treat health conditions. Food scientists / food product developers study the deterioration and processing of food, research and develop food products, adjust the formula and conditions for mass production, design and develop the food packaging, and ensure the quality and safety of the food products. In other words, a lot of the food products that you see in the supermarket are actually “made” by food scientists / food product developers!

Knowing my passion for food science and food product development, I studied Chemistry, Biology and Technology & Living (Food Science and Technology) (TL) as my electives in Good Hope School, chose Food and Nutritional Science as my major at the University of Hong Kong and studied Master of Food Science at Cornell University in the United States of America (USA). I also joined various food science competitions, interned at food companies like Hong Kong Yakult Company Limited and Amoy Food Limited, and developed plant-based food products for Nestlé USA, worked on carbohydrates and dairy based proteins which can be applied to plant-based products, supported pilot plant production and food product validation in Cornell Food Venture Centre. I must say TL has provided me with a solid foundation for not only my studies but also my career in the



Product analysis

food industry. In TL, you learn not only about the components of food, food chemistry and applications, food production techniques and technologies, food safety and sensory evaluation, but also get to conduct food experiments and learn different cooking techniques which are really useful if you want to become a nutritionist, a dietician, a food scientist or a food product developer.

So if you feel like you have the passion for food, and would love to get to know more about food nutrition, food science and food product development, TL is a good first step for you. Don't ever be afraid to follow your dreams - **be unique, be different, be You!**



Sensory tasting of beverages



Valen CHAN

Bachelor of Science (Honours) in Food Science and Nutrition
University of Surrey

Food: an essential that humans cannot live

without, has always been the object of my fascination. The sheer diversity of food, coupled with the fact that a few simple ingredients can yield thousands of combinations to cater for the immense variety of nutritional needs of different individuals, has always amazed me. Having the chance in Ying Wa Girls' School to build a solid foundation in theoretical knowledge and practical skills in Home Economics during my junior secondary years had given me so much joy, so I was very eager to dig deep into the world of Technology and Living (TL) (Food Science and Technology strand) and thus picked TL as one of my senior secondary electives without hesitation.

After my secondary education, I further pursued a degree in Food Science and Nutrition at the University of Surrey in UK and graduated last summer. TL had not only equipped me with fundamental knowledge which enabled my deep understanding of food science in a holistic context, but it also introduced me to the whole wondrous world of the food industry. I was very inspired when I delved into the structure and properties of different types of fats and it heavily inspired me to research the texture and sensory analysis of fat alternatives in action. My final year dissertation investigated candelilla wax and rapeseed oil in organogelation, the amazing Oleogel's influence on fat reformulated sweet bread rolls! With a food science degree, I wish to pursue a career as a food product developer or a food laboratory technician which I am most passionate about!

Food and nutrition have a profound impact on our health and well-being. Not only did studying TL open new windows for me, its relevance as a core aspect of our lives makes it one of my most valued learning experiences. From interpreting nutritional labels of food products to altering recipes for nutritional needs and developing new products, I have developed habits of always being innovative and critical when it comes to my daily food selection and food preparation. Thanks to TL, I often find I can't help myself but spend hours wandering in supermarkets just to check out the food labels of different food products!

Internship at Dairy Farm Group
as Technical Services Assistant

LAU Kwong-ho

Bachelor of Science (Honours) in Food Safety and Technology The Hong Kong Polytechnic University

There is nothing more rewarding than making the judicious decision in opting for Technology and Living (TL) (Food Science and Technology strand) as my elective subject at the senior secondary level when I was in Po Leung Kuk Laws Foundation College. I am truly a foodie, however, the more I learnt about TL, the more I realised that the subject is not only about eating. Much learning is related to food science, food technology, and food safety, which are all closely related to our daily lives.

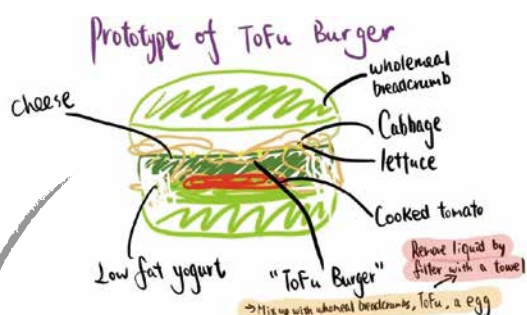
I noticed that safety concerns have become more of an issue, so I would discuss different food science topics with my family and friends on some occasions, e.g. Are supplements essential for daily consumption? How can I get more protein to build muscle? etc... Once I have learnt more about TL, I understand the importance and value of maintaining a healthy lifestyle and promoting good eating habits to individuals as well as families.

At my school, TL students were required to design and make a healthy snack for more than 400 parents on the

school's orientation day as the school-based assessment task. I carried out market research and came up with an analysis on the target group's preference of taste and texture. According to the findings, I chose low-calorie ingredients and healthy cooking methods for the snack. After designing and developing several prototypes, my final product was well-received by the parents. I had thus won praise from my peers and TL teacher. This invaluable hands-on experience gave me a precious opportunity to put into practice the knowledge and skills I had learnt in class. Furthermore, time management, problem solving, collaboration, communication and presentation skills were also enhanced, which are vital to my future career.

I am currently a final year student of BSc (Hons) in Food Safety and Technology at The Hong Kong Polytechnic University. During my university study, I sometimes make reference to the TL notes as it helps enlighten me a lot regarding my understanding about food science, food safety and food technology. In addition, I have been actively seeking food-related internship opportunities for pursuing my dream of working in the area of food science and food product development, e.g. as the Less Salt & Sugar Campaign student ambassador in 2021-2022, organised by the Food and Health Bureau; as Technical Services Assistant at Dairy Farm Group for a 2-month internship starting from June 2022.

For students who are thinking of selecting TL as an elective subject, **I reassure you that this subject will give you an amazing experience with a new perspective on food.**



School-based assessment task – One of the prototypes of my healthy snack



School-based assessment task – Final product of my healthy snack



My outreach opportunity as a "Less Salt & Sugar Campaign student ambassador", organised by Food and Health Bureau. I visited different restaurants to promote this programme and share nutritional knowledge.



Hinson CHAN

Higher Diploma in Nutrition and Food Management
HKU SPACE Po Leung Kuk Stanley Ho Community College

When I was a child, I enjoyed tasting and learning to cook different kinds of food, as well as learning their characteristics and functions. Recalling my secondary school life in Hong Kong Sea School, students would design recipes and prepare different cuisines by themselves for visitors, teachers and students for tasting on the School Open Day every year. As I chose to study “Technology and Living” (TL), I was honoured to have the opportunity to design and make one of the dishes for the guests. I felt very satisfied as soon as the face of each guest was flushed with pleasure after tasting my work. I was also enlightened that we should not only focus on the excellence of food in colour, aroma and taste, but also pay attention to the importance of health.

TL is both practical and interesting. Students need to be familiarised with food and nutrition, be informed of the correct methods of food preparation, and be aware of food safety, food science, food culture, etc. By studying TL, I have come to realise the importance of relationship between diet and health. In view of this, after graduation from secondary school, I applied for the Higher Diploma in Nutrition and Food Management Programme of the HKU SPACE Po Leung Kuk Stanley Ho Community College. Covering professional knowledge and skills about food and nutrition, food science, etc., the programme is helpful for further study in degree programmes which are related to food and nutrition.

At present, I have completed the “Higher Diploma in Nutrition and Food Management Programme”, and I will be studying the “Bachelor of Science in Food and

Nutrition (Honours)” at Ulster University in the UK. I am working hard to become a dietitian, and I hope to work for the health and well-being of others in the future.

TL (Food Science and Technology strand) can provide students with the necessary basic knowledge for getting better prepared for entering tertiary institutions and universities and receiving professional and vocational training. Plan for your future, know yourself – your personality, learning ability and interests, to establish a goal of further education, and develop your expertise!



One of the foods designed in TL

Winifred HUANG

Higher Diploma in Nutrition and Food Management

(Theme: Food and Nutritional Sciences)

HKU SPACE Po Leung Kuk Stanley Ho Community College

I believe that it is a tough and major decision to make on what subject to choose for Secondary Three students, it was the same for me at that time. I often had all kinds of worries and misgivings when the road ahead was uncertain, such as whether the elective subject would be too difficult, and whether the subject would not be helpful in the future. But in the end, I still followed my heart and chose Technology and Living (Food Science and Technology) according to my own interests, which is also an important decision that has changed my life.

When I was at Pui Tak Canossian College, Home Economics at the junior secondary level was the “most practical” among all the subjects, because I could apply the knowledge and skills I learned to my daily life. This is also one of the reasons why I studied Technology and Living (TL) (Food Science and Technology). TL provided students with more basic knowledge in the field of food science and technology than I expected, including food research and development, balanced diet, food culture, food chemistry, etc., which helped lay a solid foundation for the course I am currently studying. The knowledge is closely related to our daily life, and it has led me to start thinking about my own life planning and development direction.

Currently, I am a student of Higher Diploma in Nutrition and Food Management (Theme: Food and Nutritional Sciences) at HKU SPACE Po Leung Kuk Stanley Ho Community College. The course gives me ample opportunities to get a deeper understanding of the knowledge in food science, nutrition, etc., such as how to conduct food experiments, prepare food, study nutrition and food related topics and so on. Some may think that students studying the course will become dietitians in the future, but there are other options for further studies and career development, including in the fields of food safety, food microbiology, food service management, nutrition and health management, etc.

In addition, studying Chemistry or Biology and Food Science and Technology at the same time at senior secondary can



Learning about Thai food culture through cooking and practical projects

complement each other. These subjects make a good match. Especially when I started studying in tertiary institution, such a combination not only made it easier for me to master rich knowledge of food science, but also enabled me to handle biochemistry, human physiology and anatomy with ease.

Over the past few years, I have gradually understood my interests. At the beginning, I studied TL (Food Science and Technology) because I was a foodie, but now I have found a direction for development. It is all because of the choice that I made in Secondary Three that has made me who I am today. Perhaps you are still very confused about which subject to choose, and there are different voices around you trying to guide you to find the answer. **But please remember to listen to your heart, because may be that will change your future.**



Various hands-on courses



Graduation work for Higher Diploma in Costume Design for Performance

TANG Cheuk-yiu

Higher Diploma in Costume Design for Performance - Hong Kong Design Institute
Bachelor of Fine Arts (Honours) Degree in Theatre and Entertainment Arts -
Costume Technology Programme - Hong Kong Academy for Performing Arts

I remember when I was a child, I once participated in a volunteer activity of making hand-made dolls with my mother. My mother taught me to sew and make a felt doll. It was the first time that I had access to handicrafts, and it turned out to be so much fun. Growing up, I gradually developed a strong interest in handicrafts, sewing techniques and making clothes.

I found fashion design remarkably interesting as early as I was in the "Home Economics - Fashion Design" class in secondary school. The Home Economics teacher at our school (Shau Kei Wan East Government Secondary School) taught me a lot of knowledge and skills about sewing and fashion design. In Secondary Three, I learned the basic principles and skills of fashion design, pattern drafting and garment making. I was particularly interested in fashion design, so I started to participate in different competitions in secondary school and received quite a few awards, such as the Youth Fashion Design Contest of the Hong Kong Art and Design Festival (bronze award), the Hong Kong New Dynamic Five - DIY Fashion Reproduction Open Competition (silver award), the Fashion Design on Scaffold Competition

(gold award), the Hong Kong Cheongsam Design Competition (silver award) and the Mills Summer Program - Start-up Design Competition (gold award), etc.

I chose Technology and Living (TL) (Fashion, Clothing and Textiles) as my elective subject in Secondary Four, the contents of the subject enabled me to have a deep understanding of the fashion industry, and my knowledge of the foundation of fashion design, drawing skills, fabric and garment making was especially strengthened. With this knowledge, I got to understand the evolution of fashion and master how to create fashion design through understanding our living environment, culture and customs. At the same time, it led me to understand that the diversity of design concepts is very important, and enhanced my awareness of these elements. In addition, paper pattern is the "soul" of designs, which makes different changes in the appearance of clothing. When the teacher was teaching about the preparation of paper patterns, she gave the shirt off her back. Therefore, I was able to continuously study and strengthen my training in the preparation of paper patterns, so as to improve the quality of my works.

After completing the two-year higher diploma programme, my graduation performance work won the “2021 HKDI Image Show - Costume Design (Best Craftsmanship Award)” with the role design of “Galaxy Traveler - Space Ribbit”. In my graduation work, I made full use of the knowledge I grasped in TL, including application of materials, pattern making and sewing skills. My knowledge in these areas helped me sail through the production process smoothly and effectively and complete a nearly perfect piece of graduation work eventually.

If you are interested in the design and production of costumes for performance, taking TL (Fashion, Clothing and Textiles) at senior secondary as an elective subject can help you realise your dream. By taking TL, you can not only learn knowledge about clothing, but also master garment making skills, which will be beneficial to you for a lifetime.



Entry for the Youth Fashion Design Contest of the Hong Kong Art and Design Festival



Assignment for school-based assessment of Technology and Living



WONG Lai-ching

**Bachelor of Arts (Honours) Degree in
Fashion and Textiles (Intimate Apparel)
The Hong Kong Polytechnic University**

It's been six years since I had chosen Technology and Living (TL) as one of my elective subjects in secondary school. Barbie was my favourite childhood toy, however, the outfits were expensive, and my parents refused to buy them for me. Then, I tried making dresses for my Barbie, from sticking papers to hand stitching pieces of clothes to make my own collection. I genuinely enjoyed the process with a dream of becoming a fashion designer. Therefore, I decided to study TL to learn more about fashion. During the three years of study, I learned about garment construction, the basic knowledge of textile, and fashion history. The knowledge and skills acquired in TL helped enhance my understanding in fashion and textiles substantially in my university study.



Finished garment



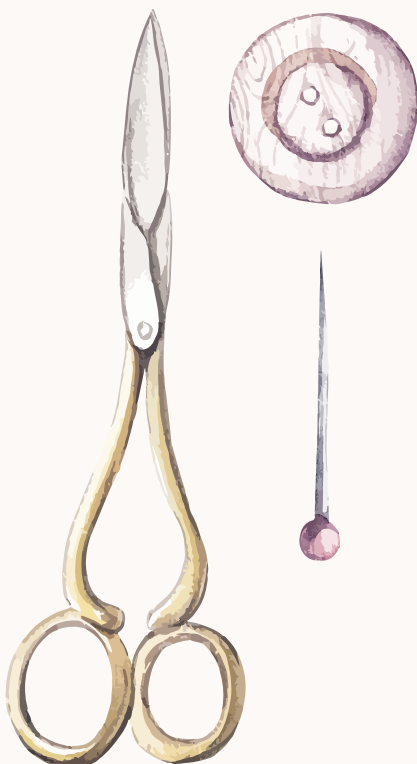


Photos of my school-based assessment task - Design sketch

Over time, I learned more about the fashion industry, like the new technologies, trends, and limitations. I then changed my mind and wanted to design products that can improve the quality of life of people. Therefore, I chose Intimate Apparel and Activewear Specialism as my core study at university, hoping to contribute to the sportswear industry one day. I believe my dream will come true as TL has helped me build a solid foundation to pursue my further studies and achieve my career goals.



My design work in Year 2



My design work in Year 3



Exhibition of Technology and Living (Fashion, Clothing and Textiles) Student Work 2021

The Exhibition of Technology and Living (Fashion, Clothing and Textiles) Student Work 2021 was held at the Exhibition Gallery, Shatin Town Hall from 19 to 28 October 2021. The Exhibition aimed to showcase students' achievement in fashion design. It also provided an opportunity for students to learn from each other and deepen their understanding of multiple pathways for Technology and Living. The exhibition included:

- Works of students taking Technology and Living at the secondary level
- Works of students taking fashion and textiles related programmes in tertiary institutions

Secondary schools offering Technology and Living (Fashion, Clothing and Textiles) at the senior secondary level and tertiary institutions were invited with over 60 pieces of student works displayed. There were around 1,000 visits to the Exhibition.

Participated Tertiary Institutions and Organisation:

- Caritas Bianchi College of Careers
- Clothing Industry Training Authority
- Hong Kong Design Institute
- Technological and Higher Education Institute of Hong Kong
- The Hong Kong Polytechnic University
- The Woolmark Company

Participated Secondary Schools:

- Chung Sing Benevolent Society Mrs. Aw Boon Haw Secondary School
- Hotung Secondary School
- Shau Kei Wan East Government Secondary School
- Society of Boys' Centres - Hui Chung Sing Memorial School
- St. Antonius Girls' College
- St. Catharine's School for Girls
- The Church of Christ in China Kung Lee College



**Chung Sing Benevolent Society
Mrs. Aw Boon Haw Secondary School**



Hotung Secondary School



Shau Kei Wan East Government Secondary School



**Society of Boys' Centres -
Hui Chung Sing Memorial School**





St. Catharine's School for Girls



St. Antonius Girls' College



The Church of Christ in China Kung Lee College



Caritas Bianchi College of Careers





Clothing Industry Training Authority



Hong Kong Design Institute



Technological and Higher Education Institute of Hong Kong



The Hong Kong Polytechnic University





Briefing on the Production of Apparel and the Application of STEM

Collaboration between the Education Bureau and the School of Fashion and Textiles of the Hong Kong Polytechnic University, the briefing held on 26 July 2022 was very well-received by Technology and Living teachers. The briefing introduced the production and design process of apparel from fibre to the final product through visiting fashion and textile related laboratories/ research and development centres, as well as the application of STEAM in textile and apparel, and career opportunities in the fashion and textile industry.



Speaker: Dr. YIP Yiu-wan, Joanne, Associate Dean and Associate Professor, School of Fashion and Textiles, The Hong Kong Polytechnic University

Spinning Workshop



Carding machine



Drawing Out Machine



Dyeing Machine

Weaving Workshop



Machine for Woven Fabric



Machine for Knitted Fabric

Garment Workshop



Industrial Electronic Sewing Machine



Computerised Embroidery Machine



Fashion Design Studio



Exhibition of Student's Work

Food Science and Technology

The University of Hong Kong

- Bachelor of Science (majoring in Food and Nutritional Sciences)

The Chinese University of Hong Kong

- Bachelor of Science in Food and Nutritional Sciences

The Hong Kong Polytechnic University

- Bachelor of Science in Food Safety and Technology

Hong Kong Metropolitan University

- Bachelor of Science in Food Testing Science

The Technological and Higher Education Institute of Hong Kong

- Bachelor of Arts (Culinary Arts and Management)
- Bachelor of Science (Food Science and Safety)
- Bachelor of Science (Nutrition and Healthcare Management)
- Bachelor of Science (Testing and Safety)

HKU School of Professional and Continuing Education

- Higher Diploma in Food Health and Business Management
- Higher Diploma in Nutrition and Food Management (Food and Nutritional Sciences)
- Higher Diploma in Nutrition and Food Management (Food Science and Safety)

Hong Kong Institute of Vocational Education

- Higher Diploma in Applied Nutritional Studies
- Higher Diploma in Food Technology and Safety
- Higher Diploma in Fitness and Exercise Nutrition



Fashion, Clothing and Textiles

The Hong Kong Polytechnic University

- Bachelor of Arts in Fashion (Fashion Design)
- Bachelor of Arts in Fashion (Knitwear Design)
- Bachelor of Arts in Fashion (Contour Fashion and Activewear)
- Bachelor of Arts in Fashion (Fashion Business)
- Bachelor of Arts in Fashion (Fashion Innovation and Technology)
- Events / Activities
 - Graduate Fashion Show (<https://www.youtube.com/watch?v=ghpfLJOWFC8>)
 - Summer School (<https://www.polyu.edu.hk/geo/prospective-students/undergraduate/local/summer-programme/>)
 - Mini Lecture (<https://www.plktyc.edu.hk/CustomPage/54/PolyU%20Online%20Mini-lecture-March.pdf>)

The Technological and Higher Education Institute of Hong Kong

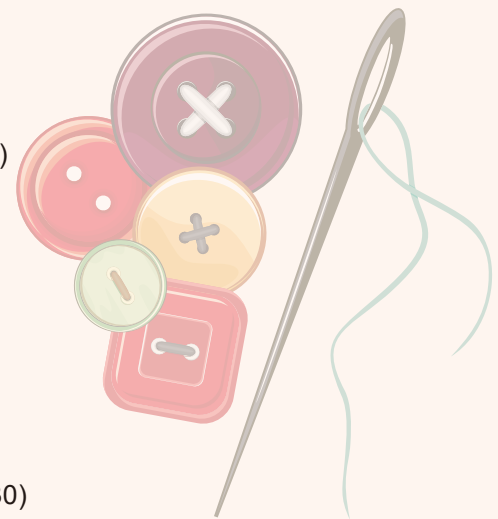
- Bachelor of Arts (Fashion Design)
- Events / Activities
 - Graduate Fashion Show (<https://www.youtube.com/watch?v=wLL-0uBDSbM>)
 - Taster Programme (<https://thei.edu.hk/tc/page/detail/3563/>)

Caritas Bianchi College of Careers

- Higher Diploma in Design (Fashion Design)
- Graduate Fashion Show (<https://www.youtube.com/watch?v=6oQaAkfGwDg>)

Hong Kong Design Institute

- Higher Diploma in Fashion and Image Design
- Higher Diploma in Fashion Branding and Buying
- Higher Diploma in Fashion Media Design
- Higher Diploma in Costume Design for Performance
- Higher Diploma in Fashion Design
- Events / Activities
 - Graduate Fashion Show (<https://www.youtube.com/watch?v=U2zDyUJv830>)
 - School visits
 - Centre of Design Services and Solutions (<https://www.hkdi.edu.hk/en/knowledge-centre/cdss.php#section-908>)
 - Centre of Innovative Materials and Technology (<https://www.hkdi.edu.hk/tc/knowledge-centre/>)
 - Fashion Archive (https://www.hkdi.edu.hk/tc/knowledge-centre/fashion_archive.php)

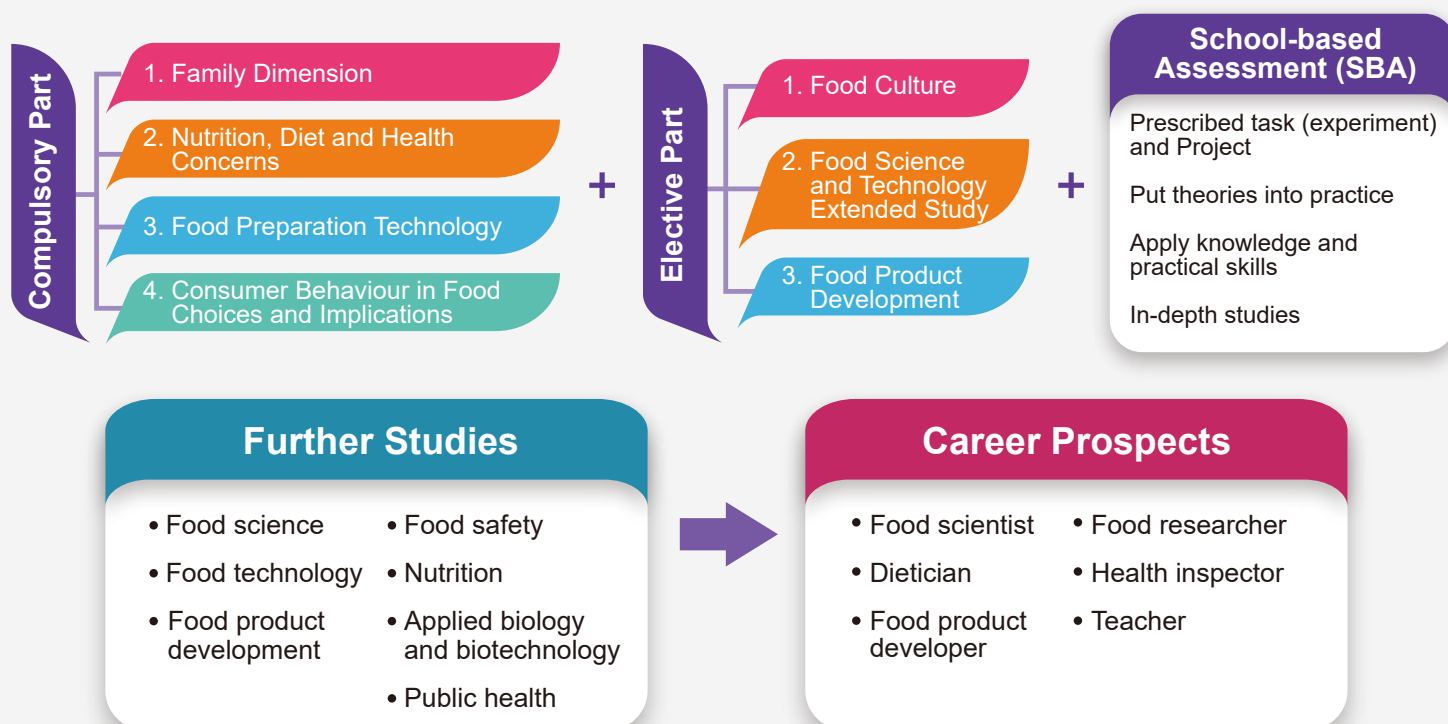


Clothing Industry Training Authority

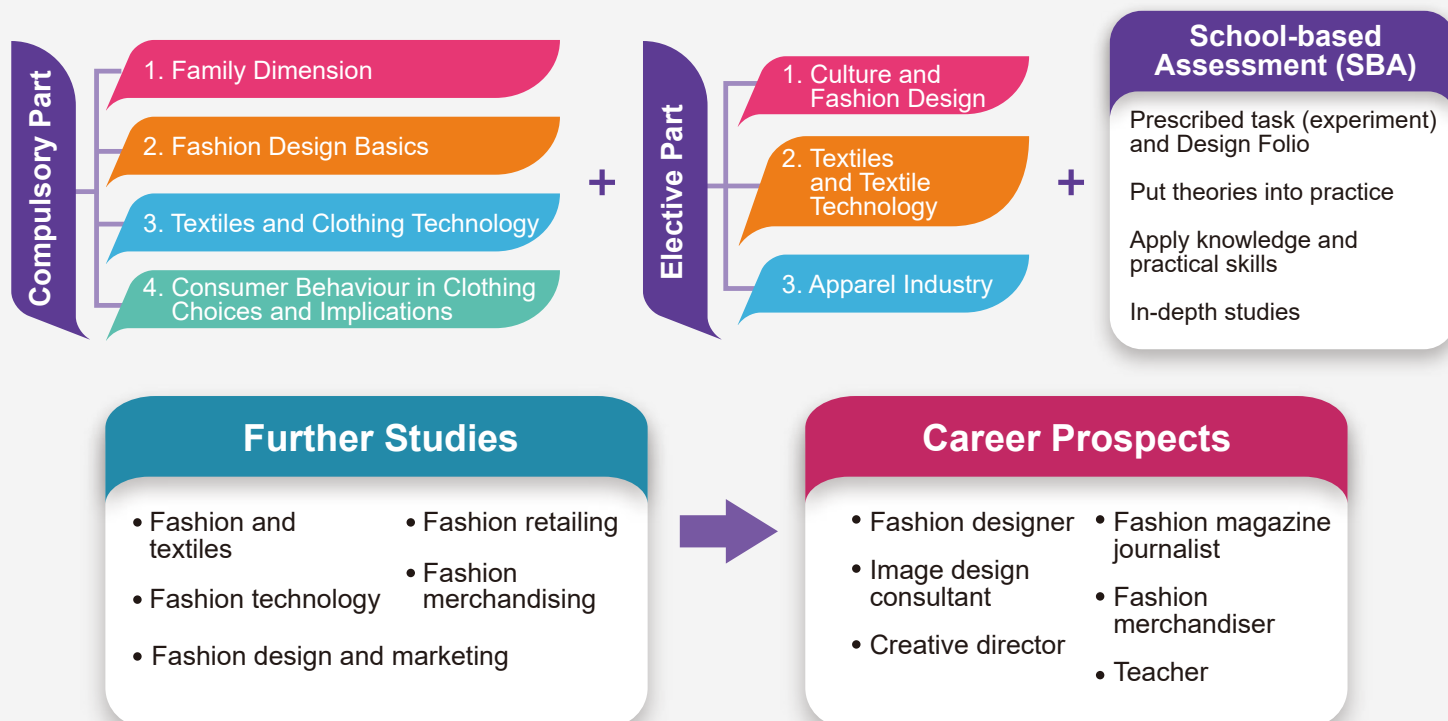
- Higher Diploma in Digital Fashion Creation



Food Science and Technology Strand



Fashion, Clothing and Textiles Strand



ETV production of Technology and Living:
Paving the Way for Professional Careers
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