Integrating NQC:
Perspectives and Curriculum Decisions of a Science School in Temasek Polytechnic

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Greetings from TP!

AT A GLANCE...

30 hectare campus
37 diplomas
1,400 full-time staff
13,000 full-time students

6 Schools:
- Applied Science
- Business
- Design
- Engineering
- Humanities & Social Sciences
- Informatics & IT
Greetings from ASC!

AT A GLANCE...

1,500 full-time students

250 part-time students

135 full-time staff

4+2 (COI) Centres

5 Full-time Diploma Courses
  - Chemical Engineering
  - Food, Nutrition & Culinary Science
  - Medical Biotechnology
  - Pharmaceutical Science
  - Veterinary Technology

9 Part-time Diploma Courses

DIPLOMA IN APPLIED SCIENCE
  - Aquaculture
  - Chemical Technology
  - Medical Laboratory Science
  - Security & Workplace Safety
  - Veterinary Technology

SPECIALIST DIPLOMA
  - Environment & Water Technology
  - Lab Management & Instrumentation
  - One Health
  - Veterinary Wellness Care
Perspective: SkillsFuture Oriented
Aligning to SkillsFuture – a national movement (since 2015)

Pedagogical Impact of SkillsFuture:
- Learn for mastery;
- Learn throughout life;
- Learn for life
Perspective: Practice-based & Skills Education

A growing emphasis of PSE in Temasek Polytechnic

A **curriculum approach** that aims to develop learners to be industry ready graduates.

The curriculum is oriented towards the characteristic **practices of an occupation**.

Students are assisted and engaged in an integrated way into the **current** practices and, what they need to respond to for the **changing** practices of work.

Source:
Learning Academy @ TP
Perspective: TP Desired Student Profile

Emphasizing both domain and life skills

- Future-oriented Creator
  - Problem solver
  - Digital & information literate
  - Innovative & entrepreneurial

- Lifelong Learner
  - Self-directed
  - Resilient
  - Competent

- Values-centred Leader
  - Rooted citizen of sound character
  - Service-oriented
  - Communicative & collaborative
A Curriculum Approach
Making key curriculum decisions

Source: PSE Workshop by the Learning Academy @ TP

Occupations
our graduates enter into

Practices
what graduates do at the workplace

- Technical skills
- Soft skills
- Underpinning knowledge
- Values

SkillsFuture Skills Framework
TP Student Profile

PERSPECTIVES & CURRICULUM DECISIONS 28 APRIL 2021
## A Curriculum Approach
### Making key curriculum decisions

"A key challenge – what to keep and what to let go?"

<table>
<thead>
<tr>
<th>What do Practitioners do?</th>
<th>Skills</th>
<th>Knowledge</th>
<th>Others eg. values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Technical ★</td>
<td>Soft ★</td>
<td>Related to: Pipetting technique; Standard deviation</td>
</tr>
<tr>
<td>Test reliability</td>
<td>Calibration skills</td>
<td>Communication: verbal &amp; written</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biostatistics skills</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

★ SkillsFuture Skills Framework
★ TP Student Profile

Source: An example from the Diploma in Medical Biotechnology
A Curriculum Approach
Making key curriculum decisions

“A key challenge - aligning curriculum, pedagogy & assessment”

Pharmacy Technicians Entry-to-Practice Competency Standards

With Implementation Guide for Competency Assessment

Chief Pharmacist’s Office
Version 2.0: September 2020

The Skills Framework for Healthcare> Pharmacy Support (2019) built upon the ETP Competency Standards

Source:
An example from the Diploma in Pharmaceutical Science

Source:
An example from the Diploma in Pharmaceutical Science