



2013 Curriculum for the Certificate of Vocational Education in Textile Industry

Textile Chemistry Program

**Office of
the Vocational Education Commission
Ministry of Education**

Program Structure

2013 Curriculum for the Certificate of Vocational Education in Textile Industry

Textile Chemistry Program

The graduates of the Certificate of Vocational Education in Textile Industry (Textile Chemistry) must complete minimum 103 credits from different courses and participate in extracurricular activities are shown in the following structure.

1. Life Skills Courses		minimum 22 credits
1.1 Thai Language Courses		(minimum 3 credits)
1.2 Foreign Language Courses		(minimum 6 credits)
1.3 Science Courses		(minimum 4 credits)
1.4 Mathematics Courses		(minimum 4 credits)
1.5 Social Studies Courses		(minimum 3 credits)
1.6 Health Education and Physical Education Courses		(minimum 2 credits)
2. Vocational Skills Courses		minimum 71 credits
2.1 Basic Vocational Skills Courses		(18 credits)
2.2 Specialized Vocational Skills Courses		(24 credits)
2.3 Elective Vocational Skills Courses		(minimum 21 credits)
2.4 Vocational Skills Practical Experience		(4 credits)
2.5 Vocational Skills Development Project		(4 credits)
3. Elective Courses		minimum 10 credits
4. Extracurricular Activities	(2 hours per week)	
	Total	minimum 103 credits

1. Life Skill Courses**minimum 22 credits**

In each group listed below, the first course is compulsory (except 1.6). The remaining credits can be selected from other courses within the group to meet the requirements. The chosen courses must be related to the program of study. The total credits should be at least 22.

1.1 Thai Language Courses (minimum 3 credits)

Code	Title	T – P – C
2000-1101	Basic Thai	2 – 0 – 2
2000-1102	Thai for Careers	1 – 0 – 1
2000-1103	Business Thai	1 – 0 – 1
2000-1104	Speaking for Careers	1 – 0 – 1
2000-1105	Writing for Careers	1 – 0 – 1
2000-1106	Creative Thai	1 – 0 – 1
2000*1101 to 2000*1199	Courses in this range are additionally developed by the individual colleges or institutes.	* - * - *

1.2 Foreign Language Courses (minimum 6 credits)

Code	Title	T – P – C
2000-1201	Real Life English 1	2 – 0 – 2
2000-1202	Real Life English 2	2 – 0 – 2
2000-1203	English Listening and Speaking 1	0 – 2 – 1
2000-1204	English Listening and Speaking 2	0 – 2 – 1
2000-1205	Reading Authentic Materials	0 – 2 – 1
2000-1206	Daily Writing	0 – 2 – 1
2000-1207	Technical English On-the-Job	0 – 2 – 1
2000*1201 to 2000*1299	Courses in this range are additionally developed by the individual colleges or institutes.	* - * - *

1.3 Science Courses (minimum 4 credits)

Code	Title	T – P – C
2000-1301	Science for Life Skills	1 – 2 – 2
2000-1302	Science for Industry	1 – 2 – 2
2000-1306	Science Project	0 – 2 – 1
2000*1301 to 2000*1399	Courses in this range are additionally developed by the individual colleges or institutes.	* - * - *

1.4 Mathematics Courses (minimum 4 credits)

Code	Title	T – P – C
2000-1401	Basic Mathematics	2 – 0 – 2
2000-1402	Basic Mathematics for Careers	2 – 0 – 2
2000-1403	Basic Mathematics for Industry 1	2 – 0 – 2
2000-1404	Basic Mathematics for Industry 2	2 – 0 – 2
2000-1405	Introduction to Calculus and Analytic Geometry	2 – 0 – 2
2000*1401 to 2000*1499	Courses in this range are additionally developed by the individual colleges or institutes.	* - * - *

1.5 Social Studies Courses (minimum 3 credits)

Code	Title	T – P – C
2000-1501	Civil Duties and Morals	2 – 0 – 2
2000-1502	Life Skills and Society	2 – 0 – 2
2000-1503	Geography and Thai History	2 – 0 – 2
2000-1504	AREEAN Studies	1 – 0 – 1
2000-1505	Current Affairs	1 – 0 – 1
2000-1506	AREEAN Culture	1 – 0 – 1
2000*1501 to 2000*1599	Courses in this range are additionally developed by the individual colleges or institutes.	* - * - *

1.6 Health Education and Physical Education Courses (minimum 2 credits)

Select any course(s) within this group for a total of not less than 2 credits.

1.6.1 Physical Education Courses

Code	Title	T – P – C
2000-1601	Physical Education for Health Development	0 – 2 – 1
2000-1602	Life Skills for Health Development	0 – 2 – 1
2000-1603	Physical Fitness for Work	0 – 2 – 1
2000-1604	Self-Defense	0 – 2 – 1
2000-1605	Physical Education for Disabled	0 – 2 – 1

1.6.2 Health Education Courses

Code	Title	T – P – C
2000-1606	Life Management for Happiness	1 – 0 – 1
2000-1607	Sexuality Education	1 – 0 – 1
2000-1608	Narcotic Education	1 – 0 – 1

1.6.3 Integrated Courses

Code	Title	T – P – C
2000-1609	Skills for Healthy Behavior	1 – 2 – 2
2000-1610	Quality of Life Development	1 – 2 – 2

Code	Title	T – P – C
2000*1601 to 2000*1699	Courses in this range are additionally developed by the individual colleges or institutes.	* - * - *

2. Vocational Skills Courses minimum 71 credits

2.1 Basic Vocational Skills Courses (18 credits) All courses are compulsory.

Code	Title	T – P – C
2001-1001	Career knowledge	2 – 0 – 2
2001-2001	Computer and Information for Work	1 – 2 – 2
2800-1001	Fibers	2 – 0 – 2
2800-1002	Introduction to Fabrics	2 – 0 – 2
2800-1003	Textile Testing	1 – 3 – 2
2800-1007	Basic Electrical and Electronic Work	1 – 3 – 2
2802-1001	Basic Chemistry	2 – 2 – 3
2802-1002	Chemical Calculation	2 – 2 – 3

- **Additional Basic Vocational Skills Courses**

Colleges and institutes can also provide the following courses under the Elective Vocational Skills Courses or Elective Courses.

Code	Title	T – P – C
2001-1002	Entrepreneurship	2 – 0 – 2
2001-1003	Energy and the Environment	1 – 2 – 2
2001-1004	Vocational Hygiene and Safety	1 – 2 – 2
2001-1005	Resource and Environment Conservation at Work	1 – 0 – 1
2001-1006	Labor Law	1 – 0 – 1
2001-1007	Work Safety	1 – 0 – 1

2.2 Specialized Vocational Skills Courses (24 credits) All courses are compulsory.

Code	Title	T – P – C
2802-2001	Textile Material Preparation	1 – 3 – 2
2802-2002	Cellulose Fiber Dyeing 1	1 – 3 – 2
2802-2003	Cellulose Fiber Dyeing 2	1 – 3 – 2
2802-2004	Color Mixing and Matching	1 – 3 – 2
2802-2005	Protein Fiber Color Dyeing	1 – 3 – 2
2802-2006	Synthetic Fiber Color Dyeing	1 – 3 – 2
2802-2007	Mixed Fiber Dyeing	1 – 3 – 2
2802-2008	Local Dyeing	1 – 3 – 2
2802-2009	Printing Pattern Design	1 – 3 – 2
2802-2010	Textile Printing 1	1 – 3 – 2
2802-2011	Textile Printing 2	1 – 3 – 2
2802-2012	Textile Material Finishing	1 – 3 – 2

2.3 Elective Vocational Skills Course (minimum 21 credits)

Select courses from the following list.

Textile Chemistry

Code	Title	T – P – C
2802-2101	Color Dyeing Machine	2 – 0 – 2
2802-2102	Basic Textile Chemical Engineering	2 – 0 – 2
2802-2103	Applied Chemistry for Textile Work	2 – 2 – 3
2802-2104	Tie Dye and Batik Dyeing	1 – 6 – 3
2802-2105	Industrial Chemistry	2 – 2 – 3
2802-2106	Silk Screen Printing	1 – 3 – 2
2802-2107	Basic Organic Chemistry	2 – 2 – 3
2802-2108	Fabric Production	1 – 4 – 3
2802-2109	Industrial Psychology	2 – 0 – 2
2800-1009	Industrial Materials	2 – 0 – 2
2802*2101 to 2802*2199	Elective Courses in this range are additionally developed by the individual college or institute according to the needs of the workplace or the regional strategies.	* - * - *

Dual Vocational Education (DVE)

Code	Title	T – P – C
2802-5101	Textile Chemistry Practice 1	* - * - 3
2802-5102	Textile Chemistry Practice 2	* - * - 3
2802-5103	Textile Chemistry Practice 3	* - * - 3
2802-5104	Textile Chemistry Practice 4	* - * - 4
2802-5105	Textile Chemistry Practice 5	* - * - 4
2802-5106	Textile Chemistry Practice 6	* - * - 4

For the Dual Vocational Education (apprenticeship) of minimum 21 credits, the college and the workplace together analyze the nature of the business of the workplace in order to determine the number of credits, appropriate courses in details, the occupational training plans, and the assessment and evaluation methods for the courses. The minimum total training time at the workplace is 54 hours, which is equivalent to 1 credit.

2.4 Vocational Skills Practical Experience (4 credits)

Select only 2802-8001 Work Practice or, alternatively, select 2802-8002 Work Practice 1 together with 2802-8003 Work Practice 2.

Code	Title	T – P – C
2802-8001	Work Practice	* - * - 4
2802-8002	Work Practice 1	* - * - 2
2802-8003	Work Practice 2	* - * - 2

2.5 Vocational Skills Development Project (4 credits)

Select only 2802-8501 Project or, alternatively, select 2802-8502 Project 1 together with 2802-8503 Project 2.

Code	Title	T – P – C
2802-8501	Project	* - * - 4
2802-8502	Project 1	* - * - 2
2802-8503	Project 2	* - * - 2

3. Elective Courses

minimum 10 credits

Courses can be chosen from the list below or from any area and program of study provided in the 2013 Curriculum for the Certificate of Vocational Education, according to students' aptitudes and interests. However, individual colleges and institutes can develop additional elective courses in relation to the local community needs and contexts.

Code	Title	T – P – C
2802-9001	Color Theories	1 – 2 – 2
2802-9002	Textile Product Design	1 – 3 – 2
2802-9003	Textile Information Technology	1 – 2 – 2
2802-9004	Yarn Structure	1 – 2 – 2
2802-9005	Textile Product Sewing	0 – 4 – 2
2802-9006	Textile Chemistry Machine Maintenance	2 – 0 – 2
2802-2105	Textile Quality Control	2 – 0 – 2
2802-2107	Mechanical Mechanics	2 – 0 – 2
2XXX*9X01 to 2XXX*9X99	Elective courses in this range are additionally developed by individual colleges or institutes according to the needs of the workplace or the regional strategies or further study.	* - * - *

4. Extracurricular Activities

(2 hours a week)

Code	Title	T – P – C
2000-2001	Rover Scout Activity 1	0 – 2 – 0
2000-2002	Rover Scout Activity 2	0 – 2 – 0
2000-2003	Vocational Organization Activity 1	0 – 2 – 0
2000-2004	Vocational Organization Activity 2	0 – 2 – 0
2000-2005	Vocational Organization Activity 3	0 – 2 – 0
2000-2006	Vocational Organization Activity 4	0 – 2 – 0
2000*2001 to 2000*20XX	Courses in this range are additionally developed or arranged by individual colleges, institutes or the workplace. This can be a military activity.	0 – 2 – 0