



SYLLABUS OF THE FINAL COURSE

OF

SECONDARY SCHOOL

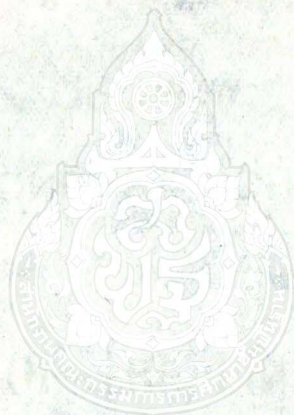
OF SIAM

Ministry of Public Instruction

B. E. 2471.

Printed by Bureau of Text-Books
Ministry of Public Instruction.

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SYLLABUS OF THE FINAL COURSE OF SECONDARY SCHOOLS.

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Owing to the large increase in the number of schools and scholars, it has been realized that the old syllabus is not sufficiently competent to keep pace with the advance of education. Accordingly, a new scheme is conceived, which it is hoped will provide for a broader scope of education. This new scheme will involve changes in the syllabus. Among other changes that are being contemplated, the following features should be mentioned—a more practical method of utility education, for which further survey of the present vocational courses must needs be made; more insistence upon the study of the national language and national ideals; and more definite aiming as to our products of education. The entire syllabus will have to be reconsidered from the lowest grades. More urgent however than any other grade is the final secondary one (VII and VIII Madhyoms), since it has long been recognised that the syllabus of this grade is unsatisfactory, involving a high standard of linguistic as well as mathematical accomplishments which have been but very rarely fulfilled. The new final secondary syllabus is accordingly divided into three courses (of two years

each as before), in order that the student may have due opportunity of utilising his natural aptitude to the best of his ability, while ever bearing in mind that it is a general education that is to be given. The courses are (1) general (2) linguistic (3) scientific. The general course serves as a preparatory step for those who intend studying law, or the liberal Arts, for aspirants for instance of the Royal Civil Service. The linguistic course serves those especially who will go abroad for University or professional education of a general kind; while the scientific course prepares those who intend specialising in Mathematics and Natural Science by giving them a general education (including Siamese and one foreign language) with the above end in view. The last course should serve students who wish to take up after leaving school the study for example of engineering or to enter the Military Academy. Medical students too might perhaps be recruited from this course. It should be mentioned that except for those in the linguistic course it would be necessary to learn only one language but that should be done efficiently. It is thought that to know one language well is better than two indifferently. At present English, French and German are offered for selection, and it is hoped that before long there may be the addition of Chinese.

The syllabus is thus tabulated :--

Subject	General Course	Modern Language Course	Science Course
Moral Instruction	1 hr.	1 hr.	1 hr.
Siamese	5 hrs.	5 hrs.	4 hrs.
Modern languages	9 hrs. (one language)	13 hrs. (two languages)	7 hrs. (one language)
History & Geography	3 hrs.	3 hrs.	-----
Mathematics	6 hrs.	2 hrs.	7 hrs.
Science	2 hrs. (one subject)	2 hrs. (one subject)	7 hrs. (three subjects)
Physical Training	1 hr.	1 hr.	1 hr.
Total	27 hrs.	27 hrs.	27 hrs.

NOTE: Assembly, religious instruction (for Buddhists), and training in athletic sports and scoutcraft are to be done outside the time mentioned above. The syllabus also applies to girl students who intend taking up a University career.

Course	Subject	Course of Instruction.
All Courses.	Moral Instruction.	<p>(1) Instruction should follow the line as laid down in the Manual of Moral Instruction for the Royal Military College. The instructor may at his discretion, divide or otherwise rearrange the text into parts to suit the requirement of the 7th. and the 8th. year of the Madhyom.</p> <p>(2) Buddhist students shall attend religious service, and listen to prescribed sermons delivered by Buddhist priests, once a week. Such religious service shall, whenever possible, be conducted in Buddhist chapels; the time allotted shall be outside of the regular school timetable. For non-Buddhist students on authority, religious service is not compulsory.</p>

Course.	Subject.	Course of Instruction.
General.	Siamese.	<p>a. The study of pieces of Siamese literature as annually prescribed by the Ministry of Public Inst. In the case of poetry students should be able to read aloud in the traditional fashion; they are also expected to commit to memory not less than 50 of the prescribed verses, or 100 lines.</p> <p>b. Essay writing on a line requiring requisite thought and knowledge.</p> <p>c. Précis writing.</p> <p>d. The study of grammar which should cover etymology, analysis, and parsing in detail. Students are expected to recognise the metres commonly met with.</p>
Linguistic.	Siamese.	As in the General Course.
Scientific.	do.	As in the General Course, with the exception of less

Course.	Subject.	Course of Instruction.
<p>For the General and Scientific one language only, taken as Minor subject, is required.</p>	<p>Foreign Languages.</p> <p><u>1. English.</u></p> <p><u>a. Major.</u></p> <p>(1) Reading.</p>	<p>time and fewer books may be taken up for literature.</p> <p>Note. Besides the prescribed texts, students should be induced to read as much as possible other literary works, a list of which may be had from the Bureau of Text Books in the Ministry.</p> <p>Covering two readers, a list of which is appended.</p>
<p>For the Linguistic two languages, one Major and one Minor, are required.</p>	<p>(2) Dictation and Translation.</p>	<p>(a) Passages from the prescribed reading books to be written from dictation, and to be translated into correct Siamese.</p> <p>(b) Unseen passages from Modern English Literature</p>

Course.	Subject.	Course of Instruction.
	(3) Grammar.	<p>to be written from dictation, and to be translated into correct Siamese.</p> <p>(1) The elements of grammar, in accordance with Nesfield's Grammar.</p> <p>The attention of students should be drawn to —</p> <p>(a) The formation of words and sentences; the prefixes and suffixes.</p> <p>(b) The common errors to which Siamese students are liable.</p> <p>(c) The changing of active into passive voice, and vice versa.</p> <p>(d) The changing of direct into indirect speech, and vice versa.</p> <p>(2) Simple analysis and parsing with the view to correct formation of sentences.</p>

Course.	Subject.	Course of Instruction.
	(4) Composition.	<p>(The purpose of Grammar is to be considered as a means to correct English rather than the study of its formalities).</p> <p>Efficiency in :-</p> <ul style="list-style-type: none"> (a) the use of compound and complex sentences; (b) the reproduction of short stories in writing; (c) the use of punctuation; (d) the writing of essays on current and historical events, and on topics of general interest; (e) making précis from a reading book; (f) paraphrasing pieces of poetry; (g) writing private, business, and official letters; (h) conversing in English on simple topics.

Course.	Subject.	Course of Instruction.
	(5) Literature.	Students are required :-
		(a) to read a set book of prose;
		(b) to study an essay of good standard;
		(c) to commit to memory the prescribed verses, and
		(d) to paraphrase them.
	<u>b. Minor.</u>	As Major, with the exception of Literature.
		Note. The examination papers set for the Scientific Course shall be somewhat easier than those set for the General Course.
	<u>2. French.</u>	
	<u>a. Major.</u>	
	(1) Reading.	For Madhyom VII a reader, or a reader combined with grammar, is used, as well as a set book by a standard author (fiction or history).

Course.	Subject.	Course of Instruction.
	<p>(2) Dictation and Translation..</p> <p>(3) Composition.</p> <p>(4) Conversation.</p>	<p>For Madhyom VIII two set books are used, one being an essay (literary, critical or historical), and the other a play or a poem (or a collection of poems).</p> <p>Passages similar to the reading books to be translated correctly, both orally and in writing, into Siamese (not into English), and vice versa.</p> <p>Note. When translating from, or into French, a broad but correct translation is preferred to a too literal one.</p> <p>On current topics, or the substance of the prescribed readers dealing with French thought, history, and literature.</p> <p>To be able to engage in a conversation on French manners and customs; on agricultural, industrial, and commercial topics of France.</p>

Course.	Subject.	Course of Instruction.
		<p>Note. The aim of the teacher here should be an oral acquaintance with the language, and as Grammar cannot be avoided it should be taught in connection with reading and translation. In short the aim is to save time usually wasted upon the theory of Grammar.</p>
	(b) Minor	
	(1) Reading.	For Madhyom VII a reader, or a reader combined with grammar, should be used; for Madhyom VIII a set book (preferably fiction) by a standard author.
	(2) Dictation and Translation.	As in French Major.
	(3) Composition.	To write a simple essay or story.
	(4) Conversation.	To be able to engage in easy conversation, and to speak clearly.

Course.	Subject.	Course of Instruction.
	(3) German.	<p>Note. Students are expected to train their ears for the language as in French Major.</p> <p>As in French, both in Major and Minor, the only need is the substitution of the word "German" for the word "French."</p>
	(4) Chinese	<p>The Ministry of Public Instruction hopes to be able to set up a curriculum for the study of Chinese in the near future on the same lines as the courses of Instruction for other foreign languages in the present syllabus.</p>
General.	History and Geography.	<p>(1) <u>Siam.</u></p> <p>(a) From the origin of the Thai race in the basin of the Yang-tse-kiang to the present day.</p> <p>(b) The introduction of Buddhism into Siam.</p>

Course.	Subject.	Course of Instruction.
		<p>(2) <u>The other countries of the Indo-Chinese Peninsula</u>, comprising Burma, Pegu, Cambodia, Cochinchina, Annam, and Tonkin; events leading up to their present status.</p> <p>(3) <u>The Chinese empire</u>, from the period of the first intercourse with Europeans in the year 1834 A.D.; the causes and effects of the wars with the European Powers and Japan; the change of the constitution and the civil war; Sunyatsen and recent events.</p> <p>(4) <u>Japan</u>, from the fall of the Shogunate; the establishment of a modern government; Progressive growth of the Empire as land marked by the wars with China, and Russia. Effects of the World-War on Japan modern progress.</p>

Course.	Subject.	Course of Instruction.
		(5) <u>The World after the Great war</u> , the results of the World-War; the League of Nations; Modern political developments; the grouping of the nations.
Linguistic.	History and Geography.	As in General Course.
General	Mathematics	Up to Stocks and Shares, Miscellaneous Problems, Mensuration, i.e. the whole course of Arithmetic.
	(1) Arithmetic	
	(2) Algebra	Up to Progressions, Surds and Indices, Ratio, and Proportion, Variation and easy Graphs,
	(3) Geometry	Up to Geometrical Equivalents of some Algebraical Formulæ, Rectangles in connection with circles, Problems, equivalent to work covered by "Hall and Stevens' Geometry" as far as Part IV.

Course.	Subject.	Course of Instruction
Linguistic.	Mathematics	
	(1) Arithmetic.	Same as for General Course.
	(2) Algebra.	Up to Quadratic Equations and Problems leading to Quadratic Equations equivalent to work covered by Hall's Algebra as far as Part I, but without Graphs.
	(3) Geometry.	Up to Tangency, Circles, Problems, equivalent to work covered by "Hall and Stevens' Geometry" as far as Part III.
Scientific.	Mathematics	
	(1) Arithmetic.	Same as for General Course.
	(2) Algebra.	Same as for General Course but with the addition of Logarithms and Theory of Quadratic Equations and Functions.
	(3) Geometry.	Up to Proportional Division of Straight Lines, Triangles and Polygons, Rectangles in connection with Circles, Pro-

Course.	Subject.	Course of Instruction.
		blems, equivalent to work covered by Hall and Stevens' Geometry as far as Part V.
	(4) Trigonometry	Up to Ratios of Two Angles, Ratios of Multiple Angles, use of Mathematical Tables, ability to prove relations between sides and angles, and easy solutions of Triangles, equivalent to work covered by Hall and Knight's Trigonometry as far as Chapter XV.
For General course and Linguistic course choose one subject.	Science	
For Scientific course choose three subjects.	<u>1. Magnetism and Electricity</u>	
	<u>a. Magnetism</u>	General Magnetic Properties, Induction Polarity. Nature of Magnetism, Molecular Theory. Magnetisation and its Phenomena. Magnetic Field, Force, Law & Moment of magnets, Flux,

Course.	Subject.	Course of Instruction.
		<p>Line of Force, Tubes of Force.</p> <p>Pole Strength, Intensity, Moments, Magnetometer.</p> <p>Terrestrial Magnetism and Magnetometry.</p> <p>The Earth regarded as a magnet, Magnetic Meridian, Horizontal and Vertical Intensity, Inclination, Declination, Mariner's Compass, Astatic needles, Vibration Magnetometer.</p>
	b. Electricity.	<p><u>1. Electrostatics.</u></p> <p>Elementary facts of Statical Electricity.</p> <p>Electrification, Conductors, Insulators, Dielectrics.</p> <p>Potential, Electric Field, Force, Intensity of an Electric Field, Lines of Force and Tubes of Force.</p> <p>Induction.</p> <p>Capacity.</p>

Course.	Subject.	Course of Instruction.
		<p>Distribution of Electricity on Conductors.</p> <p>Electrical Machine, Electrophorus.</p> <p>Electroscope and Condenser.</p> <p><u>2. Electro-dynamics.</u></p> <p>General facts and Principles.</p> <p>Measurement of Current, Galvanometers.</p> <p>Potential Difference, Polarisation,</p> <p>Electromotive force, Resistance, Ohm's Law.</p> <p>Cells and Batteries.</p> <p>Chemical Effects of the Current.</p> <p>Electrolysis, Faraday's Law.</p> <p>Electromagnetism.</p> <p>Magnetic field of current.</p> <p>Electric bell.</p> <p>Elementary principle of Voltmeters and Ammeters.</p>

Course.	Subject.	Course of Instruction.
		<p>Heating Effect and Energy of the Current.</p> <p>Joule's Law.</p> <p>Electromagnetic Induction.</p> <p>'Lenz's Law.</p> <p>Induction coil.</p> <p>Elementary principle of Dynamos and Electromotors.</p> <p>Elementary principle of Telephone and Telegraph.</p>
	2. Chemistry	<p>The aim of Chemistry. Hypothesis, Theory and Law.</p> <p>Observation and Record.</p> <p>Types of Chemical Action.</p> <p>The Law of Constant Composition. Physical and Chemical Changes, Compound and Mixture.</p> <p>Analysis and Synthesis. The Law of Multiple Proportions.</p> <p>The Law of Reciprocal Proportions. Equivalent Weights.</p> <p>The Law of the Conservation</p>

Course.	Subject.	Course of Instruction.
		<p>or Persistence of Weight. The Atomic Theory.</p> <p>Gay-Lussac's Law of Volume. Avogadro's Hypothesis. The Relative Weights of the Molecules and of the Atoms. Chemical equations. Valency. Physical properties of gases. Solution. Crystallisation. Diffusion.</p> <p>Chemical and Physical Properties of Air and Water.</p> <p>Nature, Occurrence, Chief methods of preparation, Principal Properties of the following Nonmetallic Elements and their most important compounds :—</p> <p>Hydrogen, Oxygen, Carbon, Nitrogen, Sulphur, Phosphorus, Chlorine.</p> <p>Chemical and physical Characteristics of Metals as</p>

Course.	Subject.	Course of Instruction.
	<u>3. Mechanics</u>	<p>illustrated by Sodium, Calcium, Iron, Lead, Mercury.</p> <p>Mass, Density, Specific gravity.</p> <p>Velocity, Acceleration, Motion of Bodies falling vertically.</p> <p>Parallelogram of velocities, Motion on the Inclined Plane.</p> <p>Relative velocities.</p> <p>Resolution of velocities and acceleration.</p> <p>The Law of Motion. Momentum. Inertia. Conservation of Momentum.</p> <p>Gravitation.</p> <p>The motion of Connected Bodies.</p> <p>Atwood's Machine.</p> <p>Work and Energy. Power, Kinetic Energy. Potential Energy. Conservation of Energy.</p>

Course.	Subject.	Course of Instruction.
		<p>Properties of Matter, Elasticity.</p> <p>The Parallelogram of Forces. Resolution of Forces.</p> <p>Triangle and Polygon of Forces. Equilibrium on the Inclined Plane.</p> <p>Parallel Forces. Couples. Moments.</p> <p>Centre of Gravity.</p> <p>The Lever. The Wheel and Axle, Steelyard.</p> <p>The Pulley. The Inclined Plane. Balances.</p> <p>Pressure in Liquids. Transmission of Liquid pressure; Hydraulic press. Methods of finding specific gravity. Pressure on Immersed and Floating Bodies. Densities.</p> <p>Atmospheric pressure. Boyle's Law.</p>

Course.	Subject.	Course of Instruction.
	<p><u>4. Heat, Light and Sound</u></p> <p><u>a. Heat</u></p> <p><u>b. Light</u></p>	<p>General Effects of Heat.</p> <p>Temperature. Absolute Scale of Temperature.</p> <p>Thermometers.</p> <p>Expansion of Solids, Liquids and Gases. Calorimetry. Specific Heat. Latent Heat.</p> <p>Change of State. Liquafaction. Solidification. Vaporisation and Condensation.</p> <p>Properties of Vapour.</p> <p>Hygrometry. Formation of Clouds and Dew.</p> <p>Transference of Heat. Conduction, Convection, Radiation.</p> <p>The Cause and Propagation of Light. Photometry.</p> <p>Reflection at Plane and Spherical Surfaces, Refraction at Plane Surfaces, through Prism, Lens.</p>

Course.	Subject.	Course of Instruction.
		<p>Formation of Images.</p> <p>Determination of the Optical Constants of Lenses. Mirrors and Prisms.</p> <p>Dispersion.</p> <p>Velocity of Light.</p> <p>Optical Instruments, Simple and some Complex.</p> <p>Production and Propagation of Sound.</p> <p>Notes.</p> <p>Wave Length. Frequency. Velocity. Intensity. Pitch. Quality of Notes.</p> <p>Musical Scale.</p> <p>Vibration of Strings and Air Columns. Sonometer.</p>
	c. <u>Sound.</u>	
	5. Biology. } 6. Botany. } 7. Geology. }	<p>Students wishing to take up any of the three subjects should apply to the Ministry of Public Instruction for advice.</p>
All Courses.	Physical training.	1 The instruction of scout-

Course.	Subject.	Course of Instruction.
		<p>ing lessons as laid down for the 2nd, and 1st. class scouts; students who are already 1st. class scouts are exempted from examination.</p> <p>2. Physical drills.</p> <p>3. Simple gymnastic exercises pertaining to bodily fitness.</p> <p>4. Instruction in sports and recreation of all kinds.</p> <p>Note. Part of the time for instruction to be outside of the regular school hours. The form will be the unit of examination. Girl students may take up physical drills or any other suitable subject.</p>
All Courses.	Optional subjects.	Optional subjects as in singing and music to remain as hitherto for both boys and girls.

List of English Books.

Prose.

Charles Lamb : Essays of Elia.

Defoe : Robinson Crusoe.

Marryat : The Settlers in Canada.

Washington Irving : Rip Van Winkle.

Ballantyne : Coral Island.

Stevenson : Treasure Island.

Poetry.

Palgrave : Golden Treasury.

W. E. Henley : Lyra Heroica.

Thornton : Selection of Poetry for Schools.

Gray : Elegy.

**Geographical
Readers.**

Fairgrieve and Young : Human Geography :
The World.

Highways of the World.

**Composition
and Extracts.**

Lewis Marsh : Literary Reader.

P. W. Pickles : Composition through reading.

Pritchard : English Extracts and Exercises.

Nesfield : Junior Course of English Composition.

Grammar.

Nesfield : English Grammar.

Twentyman : English Grammar and Composition,
Parts I and II.

List of French Books.

- Camerlynck : France : Première et deuxième années
- E. J. A. Groves : A Junior French Course.
First and Second Years.
- Victor Hugo : Morceaux Choisis : Poésie
- Augustin Thierry : Récits des Temps Mérovingiens
- Edmond About : Le Roi des Montagnes
- Lamartine : Œuvres Choiesies
- Augier et Sandeau : Le Gendre de Mr. Poirier.
- Labiche et Jolly : La Grammaire
- Mérimée : Matéo Falcone—L' Enlèvement de la Redoute
- Daudet : Cinq Contes Choisis

List of German Books.

- F. Thémoïn and Max Bluth : Deutsche Lektionen :
Band I und II.
- Schiller : Wallenstein's Tod
- Heine : Selections
- Hauff : Tales from "Die Karavane"
- Gerstäcker : Herrn Mahlhuber's Reiseabenteuer
- Meissner : Pictures of German Life

N.B. For both French and German, the use of Hachette's
Wall-Pictures and Pictorial Courses is strongly recommended.

