

Two-year Agricultural Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Common course
Grade 1	

Description

This line is not divided into branches; all students follow the same course of instruction in both grades.

The purpose of the instruction is to equip the students with the general knowledge and skills required for various duties in agriculture.

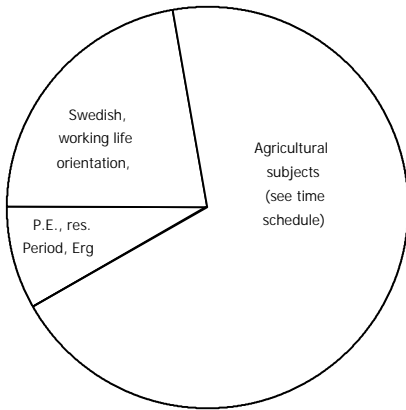
A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

A student taking the instruction and activities compulsory for this line thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocations for animal production, plant cultivation and agricultural economics are increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education
Res. period = Reserve period
Erg. = Ergonomics

The characteristic subjects of this line are

animal production

plant cultivation

agricultural machinery and maintenance of buildings

agricultural economics.

Instruction in *animal production* is aimed among other things at equipping the students with basic knowledge and skills concerning milk and milking, livestock anatomy and physiology, the feeding and care of different livestock species, livestock breeding and agricultural buildings.

Plant cultivation includes instruction in agricultural biology, soil treatment, fertilization, cultivation, care and storage. This instruction is also designed to give the students basic skills in performing various tasks involved by plant cultivation.

Agricultural machinery and maintenance of buildings includes instruction concerning elements of machinery and tools, tractors, agricultural implements, power saws, electrical equipment and the maintenance of buildings. This instruction is also designed to teach the students to make proper use of agricultural machinery and to keep it in good condition. The students also learn to perform normal maintenance operations on buildings used in farming.

Agricultural economics deals among other things with environmental conservation, consumer education, financial planning in the farming enterprise and various types of production, and bookkeeping and tax returns. Data collected and summarized from the school farm and other sources provide documentation on which to base calculating and accounting practice.

The teaching of skills is divided into productive and non-productive instruction. Non-productive instruction is organized in such a way that the students work at various learning places in livestock pens, machinery garages, practice driving areas and practice fields. In this way they learn to drive tractors, plough, sow, spray crops, operate a combine harvester, milk dairy cattle and feed both cattle and swine. Great importance is attached to the students learning to read and interpret directions and instructions and to implement various safety and security regulations.

Productive instruction then provides the students with an opportunity of putting into practice the knowledge which they have acquired at the various learning places and which is required for the proper discharge of their duties.

In the course of this instruction the pupils learn the importance of planning and organizing their work properly.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	Total no. lessons in	
	Grade 1	Grade 2
Swedish	160	-
Working life orientation	40	40
Animal production	280 ¹	360 ¹
Plant cultivation	280 ¹	320 ¹
Agricultural machinery and maintenance of buildings	360 ¹	360 ¹
Agricultural economics	120	200
Ergonomics	40	40
Physical education	80	80
Reserve period ²	40	-
Optional subject		
English	120	120
B- or C-language		
Religious knowledge		
Psychology		
Civics		
Consumer education		
Mathematics		
Music or drawing		

¹The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary education by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

² Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

³At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school

year. The student may exchange the optional subject for work technique during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the *total number of lessons* for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 1. For these various reasons, the exact loss of time cannot be computed.

After studies

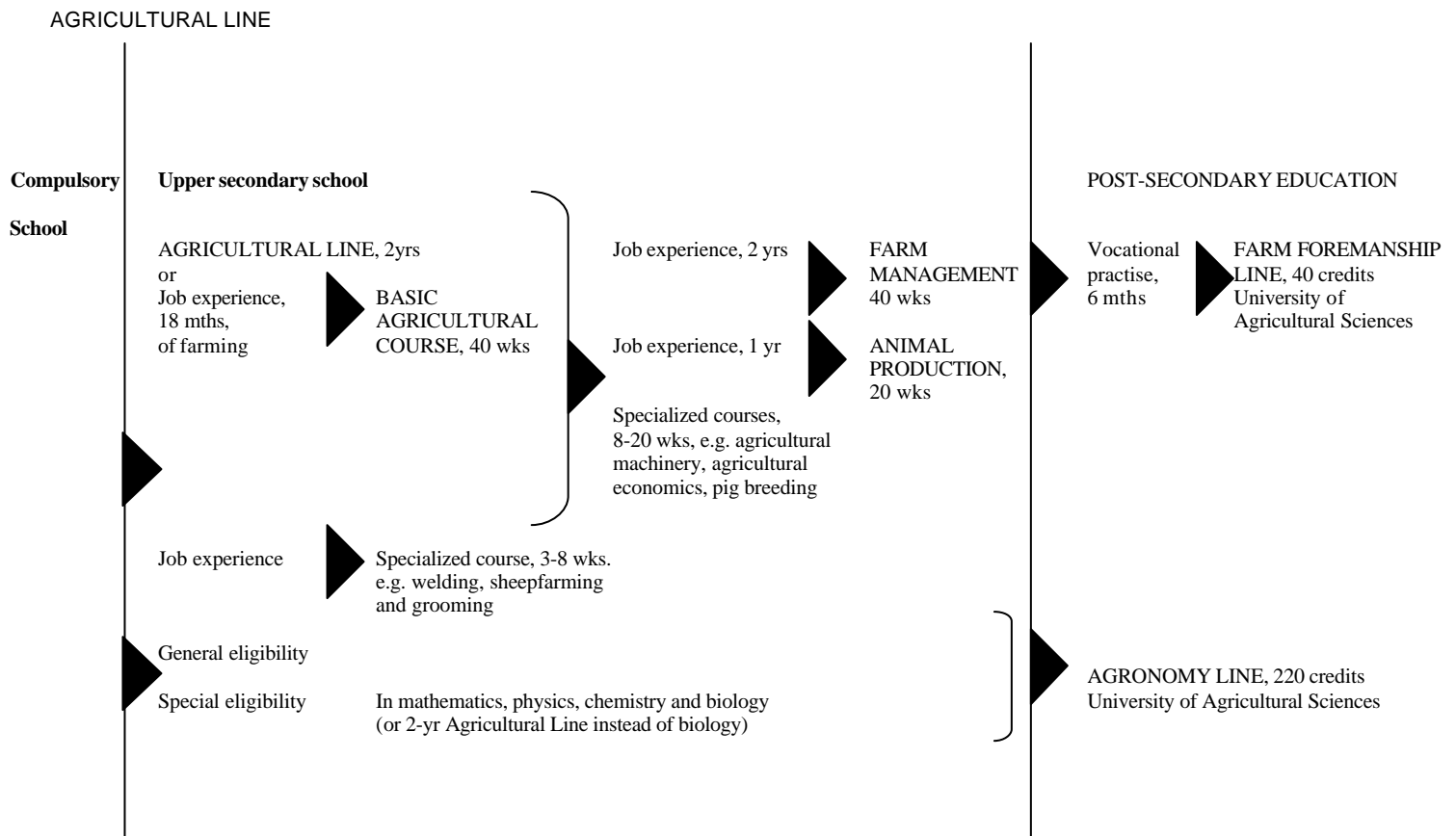
On completion of their instruction, students should be able to perform satisfactorily the duties commonly occurring in both plant cultivation and livestock farming, as well as using and maintaining the machinery and implements used in modern farming and carrying out elementary planning.

It is to be expected that the students will have to acquire a certain amount of practical job experience before attaining full professional competence.

Students acquiring a certain amount of

job experience after their basic training can, for example, undergo further training in the form of a 40-week farm management course, a 20-week short-term farm management course or a 20-week animal production course. Certain short-term specialized courses, such as care of machinery (12 weeks) and agricultural economics (10 weeks) can be applied for immediately on completion of basic training.

Also see table overleaf.



Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling

Municipality

Date

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Agricultural Line

Course of studies (complete, reduced or augmented)

Study route code

7 | 3 | 1 | 2 | 9 | 0 | 0 | 0 | 9 |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Compulsory option:			
Working life orientation			5 0 1 1 0				
Physical education ..			9 0 2 0 0	Free option:			
Animal production ..			3 3 0 5 0				
Plant cultivation			3 3 9 1 0				
Agricultural machinery and building maintenance			7 5 4 5 0				
Agricultural economics			2 0 5 3 5				
Ergonomics			5 0 3 5 0				
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Building and Constructing Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Concrete Branch (Bt)	Building Joiners Branch (Tg)	Bricklayers Branch (Mr)	Streets, Roads and Conduits Branch (Ga)	Mining and Metallurgy Branch (Br)	Heating and Plumbing Fitters Branch (Vv)	Painters Branch (Ml)	Building Platers Branch (Pl)	Floor-layers Branch (Go)
Grade 1	Common course								

Description

Instruction during the first year is common for all students intending to take the Concrete Branch, the Branch for Building Joiners, the Bricklayers Branch, the Streets, Roads and Conduits Branch or the Mining and Metallurgy Branch in grade 2.

The purpose of this common instruction is to acquaint students with the occupations represented by these branches. The common course of studies has been designed in response to the accelerating pace of change in the building sector. A concrete worker, for example, is expected to be able to perform certain joinery operations, while a joiner is expected to be able to do certain types of bricklaying and concrete work.

Students in grade 1 opt for one of the branches of grade 2; see above.

Students taking the Heating and Plumbing Fitters Branch, the Painters Branch, the Building Platers Branch and the Floor-layers

Branch receive specialized vocational training from the very beginning of grade 1.

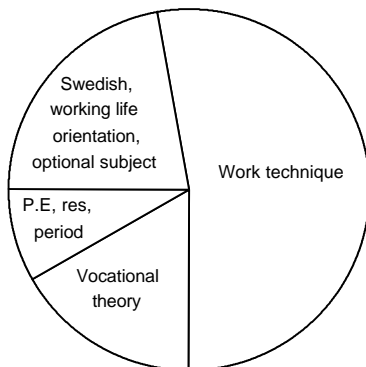
Compulsory options (see the time schedule) make it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, building and construction techniques, is increased in grade 2; see time schedule. Efforts are made to integrate the various subjects.

P.E. = Physical education

Res. period = Reserve period.

The characteristic subject of this line is

building and construction techniques

which comprises work technique and vocational theory as indicated in the time schedule.

During grade 1, work technique is taught at learning places in school workshops, with the students individually following working instructions in an ascending order of difficulty. Instruction is built up round the various materials, tools, machines and measuring instruments which the students will be using in their future trades. The students also learn to read and interpret drawings, tables and charts, to study working instructions and to practice systematically following the same, as well as learning to implement safety and security regulations.

During the introductory weeks of grade 1, in the common sector of the 13t, Tg, Mr and Ga branches, the students receive basic training in the use of tools and materials. Most of the first year, however, is devoted to combined exercises in the teaching items constituting the teaching subject building and construction techniques; see time schedule.

During grade 2, the students then

receive training in the specialized branches of their choice: Concrete Workers, Building Joiners etc.

Instruction in the Vv, MI, Pi and Go branches is specialized on a branch basis throughout grade 1.

In several branches, instruction in work technique during grade 2 is based on external workplaces (e.g. practice building sites) in order for the students to have an opportunity of doing independent work in realistic conditions and at the same time learning to co-operate with fellow workers in their own and other trades.

Work technique instruction during grade 2 in the Vv, Mi and Pi branches alternates between school and external workplaces.

In the practical part of the instruction, the students form various groups to deal with assignments aimed among other things at giving them practice in the team work which occurs at a workplace. They are enabled to try their hand at being 'safety delegates', taking charge of tools, machinery, facilities and so forth.

Each branch has its distinctive characteristics and focus. The list following the time schedule indicates the operations dominating each individual branch.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for working life orientation, however. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time schedule

Subject	Total no. lessons in			
	Grade 1	Grade 2		
		Branches Bt, Tg, Mr, Ga, MI and Go	Branch Br	Branches Vv and PI
Swedish	160	-	-	-
Working life orientation	40	40	40	40
Building and construction techniques ¹				
Work technique	800 ¹	1 200 ²	1 040 ²	1 120 ¹
Vocational theory	280	80	240	160
Physical education	80	80	80	80
Reserve period ²	40	-	-	-
Optional subject				
English	120	120	120	120
B- or C-language				
Religious knowledge				
Psychology				
Civics				
Consumer education				
Mathematics				
Music or drawing				

Bt = Concrete
Tg = Building Joiners
Mr = Bricklayers
Ge = Streets, Roads and Conduits
Br = Mining and Metallurgy
Vv = Heating and Plumbing Fitters
MI = Painters
PI Building Platers
Go Floor-layers

¹ The teaching subject Building and construction techniques comprises the following elements, among others:

BRANCHES Bt, Tg, Mr, Ge and Br

GRADE 1

Common course of studios
Types of form work
Reinforcement
Grouting
Bricklaying and joining
Framework structures etc. of timber
Section assembly
Insulation, drainage and plumbing
Scaffolding, gangplanks etc.
Concrete flooring
Surface finishing
Lining
Joinery and fittings
Machinery, conveyor and lifting devices, tools

GRADE 2

In grade 2 students specialize in the occupational fields of their choice. Specialized studios include, for example, the following sub-items in each branch.

Bt - Concrete Branch
Reinforcement
Grouting and concrete flooring
Plaster
Surface finishing of concrete

Tg - Building Joiners Branch
Form work
Framework structures, scaffolding
Joinery and fittings

Mr - Bricklayers Branch
Bricklaying and joining
Plaster
Lining work

Ge - Streets, Roads and Conduits Branch
Measuring and setting out
Surfacing and conduit work
Rock blasting
Maintenance of streets and roads

Br - Mining and Metallurgy Branch Rock work (drilling, charging, blasting etc.)

BRANCHES Vv, MI, PI, Go

GRADES 1 AND 2

Vv - Heating and Plumbing Fitters Branch
Mechanical work
Tuba fabrication
Tuba installation
Welding
Basic heat technology
Heating installations
Sanitary installations
Servicing

MI - Painters Branch
Painting of joinery
Painting and other surface treatment of ceiling, walls and floors
Painting of iron and steel structures
Maintenance and repair work
Work on new buildings

PI - Building Platers Branch
Measurement, brazing etc.
Ventilation work
Cladding work
Welding
Roof work
Repair work
Painting

Go - Floor-layers Branch
Underlay preparation
Application of rolled materials (linoleum, plastic)
Tile laying
Underlays
Parquet flooring
Floor grinding and surface finishing
Restoration and adjustments
Machinery and implements

² The number of periods can vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studios by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studios.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work techniques during one or the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total *numbers of lessons* for 40 working weeks per grade.

Further remarks. The not number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this line is to confer basic knowledge and skills for work in the building and construction sector. Students are above all prepared for employment with firms engaged in building activities and in the specialized branches for employment with various types of craft enterprises, such as firms of painters, plumbing enterprises, firms of building platers and flooring enterprises.

When the student leaves school and starts work, his or her practical training will continue at the workplace, the usual

procedure being for a period of apprenticeship to be completed under an apprenticeship agreement.

This line also provides a foundation for further training and education in the building and construction sector.

Students completing the Concrete Branch (130, the Streets, Roads and Conduits Branch (Ge) and the Mining and Metallurgy Branch (136 can, for example, apply for admission to an advanced specialized course in road engineering and construction.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Building and Construction Line

Branch	Course of studies (complete, reduced or augmented)	Study route code
		4 3 4 3 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				
Building and construction techniques			7 0 1 2 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for working life orientation. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Building and Construction Line:

43435-0105 Concrete Branch
43432-0102 Building Joiners Branch
43434-0108 Bricklayers Branch
43435-0203 Streets, Roads and Conduits Branch
43436-0103 Mining and Metallurgy Branch
43431-0104 Heating and Plumbing Fitters Branch
43433-0100 Painters Branch
43437-0101 Building Platers Branch
43432-0200 Floorlayers Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
 - 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
 - 8 = augmented course of studies.
 - 9 = reduced course of studies.
- Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Clothing Manufacturing Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Women's Clothing Branch	Men's Clothing Branch
Grade 1	Common course	

Description

Instruction during the first year is the same for all students. The purpose of this line is for each student to acquire the basic skills involved in the manual and industrial production of ladies and gentlemen's clothing.

Prior to grade 2 the student opts for one of two branches, focussing respectively on ladies' and gentlemen's wear.

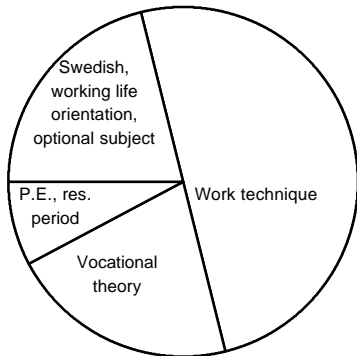
A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, clothing manufacturing, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education
res. period = Reserve period

Marks

The characteristic subject of this line is

clothing manufacturing

which comprises work technique and vocational theory as indicated in the time schedule.

The first year's teaching in clothing manufacturing is centred round certain types of garment and begins with the students practising the basic techniques of sewing by hand and machine and of pressing.

Instruction concerning the various types of garment begins with a demonstration of the garment concerned. This is accompanied by a review of the vocational theory involved.

In principle the instruction is conducted in such a way that during the first school year each student produces 2-4 garments of each type. One of these garments may be bespoke and fitted, but the main emphasis is on unfitted garments.

Instruction also deals with various clothing materials, material production methods, the properties of material and the handling of material.

The students also learn to design patterns, take measurements, calculate material requirements etc., and they practise cutting out.

As will be seen from the presentation in the time schedule, instruction is also given in draughtmanship and the history of costume.

In the practical part of the instruction, the students form various groups to deal with assignments aimed among other things at giving them practice in the team work which occurs at a workplace. They are enabled to try their hand at being 'safety delegates', taking charge of tools, machinery, facilities and so forth.

Instruction in grade 2, just as in grade 1, centres round certain types of garment.

Instruction during this grade is conducted in such a way that in principle the students produce 4-6 garments within each category. Roughly equal amounts of time are devoted to fitted and unfitted garments, a great deal of the former work being done on a bespoke basis.

In the branch for *women's clothing*, instruction in pattern design, cutting out and manufacturing focusses on such garments as blouses, dresses and coats.

In the branch for *men's clothing*, instruction in pattern design, cutting out and manufacturing focusses on such garments as jackets, blazers, trousers, waistcoats and overcoats.

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for working life orientation, however. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time schedule

Subject	Total no. lessons in		
	Grade 1	Grade 2	
		Women's clothing branch	Men's clothing branch
Swedish	160	-	-
Working life orientation	40	40	40
Clothing manufacturing ¹			
Work technique	800 ²	1 000 ²	1 000 ²
Vocational theory	280	280	280
Physical education	80	80	80
Reserve period ³	40	-	-
Optional subject			
English			
B- or C-language			
Religious knowledge	120	120	120
Psychology			
Civics			
Consumer education			
Mathematics			
Music or drawing			

¹ Clothing manufacturing comprises the following elements, among others:

Machinery, tools and apparatus

Clothing materials

Measurement (grade 1), pattern design and cutting out

Draughtsmanship

History of costume

Production methods

Production of ladies' and gentlemen's clothing in grade 1

Production of ladies' and gentlemen's clothing in the several branches of grade 2

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studios by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studios.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

⁴ At least one of the optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work techniques during one of the two grades.

B-language = German or French when studied by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total number of lessons for 40 working weeks per grade.

Further remarks. The not number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this line is to confer basic knowledge and skills applicable in the clothing manufacturing sector.

The special work procedures employed, involving individual work, group work and practise using realistic material, provide the student with training in independent work and practise in the practical application of his or her knowledge. This facilitates the discharge of the tasks which will be encountered by the student in actual employment.

Branch for women's clothing

This instruction can lead to employment in ladies' tailoring, in dressmaking or in the manufacture of ladies' clothing. Alterations departments of retail stores and fashion shops are also conceivable workplaces.

Among other things the ladies' clothing branch qualifies students for admission to

the advanced specialized courses for Ladies' tailors and Dressmaking.

This instruction also provides basic training for persons wishing to qualify as fitters, product designers (stylists), clothing manufacturing technicians or teachers in the trade.

Branch for men's clothing

This instruction can lead to employment in gentlemen's tailoring or in the manufacture of men's clothing. Alterations and tailoring departments in retail stores are also conceivable workplaces.

Among other things the gentlemen's clothing branch qualifies students for the advanced specialized course for Gentlemen's Tailors.

This instruction can also lead to further training qualifying the students as cutters out, chalkers, designers, clothing manufacturing technicians or teachers in the trade.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Clothing Manufacturing Line

Branch

Course of studies (complete, reduced or augmented)

Study route code

4 | 3 | 4 | 6 | 4 | 0 | | | |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education ..			9 0 2 0 0				
Clothing manufacturing			7 8 0 5 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for working life orientation. Instead a note is to be made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board at Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Clothing Manufacturing Line:

43464-0105 Women's Clothing Branch

43464-0203 Men's Clothing Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Consumer Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Home Economics Branch	Consumer Education Branch with Textile Bias	Restaurant and Catering Branch
Grade 1	Common course (subject to some modification in the Restaurant and Catering Branch)		

Description

With a certain exception in the case of the Restaurant and Catering Branch, instruction during the first term of this line is the same for all students. The target is to equip all students with a basic knowledge of such subject fields as family and consumer affairs, housing and the environment, diet and cooking, textile questions, health care and occupational hygiene. One of the purposes of this instruction is to acquaint the students with occupations in the social service sectors, handicraft enterprises, home furnishing and textile enterprises, restaurants and catering and other sectors.

From the second term onwards, instruction specializes according to the branches indicated above.

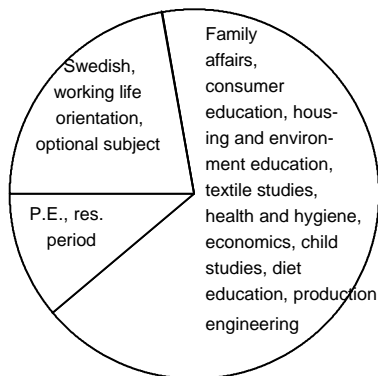
A compulsory option (see time schedule) makes it possible for the student to broaden the scope of his or her studies according to personal interest.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. Efforts are made to integrate the various subjects. P.E. = Physical education Res. period = Reserve period

Home Economics Branch

This branch features several subjects which together provide knowledge and skills relating among other things to service activities in families with children and for elderly and handicapped persons.

In *diet education, housing and environment education and consumer education*, studies are made, for example, of the preparation of properly balanced diet for different needs, community and housing planning, consumer law and consumer information. These subjects deal with the responsibilities of the community towards young families, elderly persons and the handicapped, for example, and the needs and conditions of these groups are also considered in *family affairs, child studies, nursing and care, psychology and sociology*.

Consumer Education Branch with Textile Bias

The main emphasis of this branch is on the teaching of *textile studies*, which include needlework for the first term and weaving for terms 2-4.

The students learn the elements of sewing garments and domestic textiles, methods of preparing different types of textile material and the assessment of quality.

The students also set up weaves, practice using different types of loom and learn to weave for the linen cupboard, as well as producing interior furnishings, clothing and decorative textiles. The

students help to calculate material inputs, determine qualities, patterns and colours and estimate costs.

Textile studies in grade 2 deal among other things with the textiles and textile production required for professional textile handicraft, and they also include instruction in decorative needlework.

The instruction also includes practice in furnishing and interior design and in the preparation of colour schemes for housing interiors, working premises and public interiors. Considerable prominence is given to the aesthetic element.

During grade 2 the students are also taught design, which includes colour and design exercises using various materials and the history of arts and crafts.

Restaurant and Catering Branch

The main emphasis of instruction in this branch is on *food production*, a subject peculiar to this branch.

Instruction is designed to convey knowledge and basic skills relating to cooking for large numbers. Among other things the students learn the importance of properly balanced diet, the handling of foodstuffs and the handling of machinery and utensils in the catering trade. They also study food legislation, keeping and storage of foodstuffs, the composition of menus, the planning and organization of work, the serving and dispensing of pre-cooked food, time and costing estimates and so forth.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

(also, see
overleaf)

Subject	Total no. lessons in							
	Term 1		Term 2			Grade 2		
	Branches Kh, Tx	Branch St	Branch Kh	Branch Tx	Branch St	Branch Kh	Branch Tx	Branch St
Swedish	80	80	80	80	80	120	120	120
Working life orientation	20	20	20	20	20	40	40	40
Family affairs	60	60	40	40				
Psychology					20	80		40
Sociology						80		
Consumer education	40	40	40	40	40			
Food production					380 ¹			1080 ¹
Housing and environment								
Education	60	60	80	80		200 ¹		
Textile studies	80	40	80	180 ¹			960 ¹	
Design							160	
Health and hygiene	60	80	40	40	60			
Economics	20	20	20	20	20			
Nursing and care						200		
Child studies	40		40	40		120		
Diet education	160 ¹	220 ¹	180 ¹	80		440		
Reserve period ²	40	40	40	40	40	80	80	80
Optional subject	21	20	20	20	20	-	-	-
English	} ³	60	60	60	60	120	120	120
B- or C-language								
Religious knowledge								
Civics								
Mathematics								
Music or drawing								

Kh = Home Economics Branch
Tx = Consumer Education with Textile Bias
St = Restaurant and Catering Branch

³ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work technique during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total *number of lessons* for 40 working weeks per grade.

¹ The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch.

² **Reserve periods are applied** to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 1. For these various reasons, the exact loss of time cannot be computed.

Time schedule for the various branches, with subjects by subject areas

Time Schedule B

Subject areas and subjects	Ko	Kh	Ko	Tx	Ko	St
GENERAL SUBJECTS						
Swedish	280		280		280	
Physical education	160		160		160	
Optional subject	240		240		240	
Reserve period	40		40		40	
Total no. periods, grades 1 and 2	720		720		720	
SOCIALSUBJECTS						
Working life orientation	80		80		80	
Family affairs	100		100		60	
Psychology	80		-		60	
Sociology	80		-		-	
Consumer education	80		80		80	
Economics	40		40		40	
Total no. periods, grades 1 and 2	460		300		320	
CONSUMPTION/PRODUCTION						
Housing and environment education	340		140		60	
Diet education	780		240		220	
Food production, including health and hygiene	-		-		1 600	
Textile studies, including design	160		1 380		40	
Total no. periods, grades 1 and 2	1 280		1 760		1 920	
NURSING (equivalent)						
Health and hygiene	100		100		-	
Child studies	200		80		-	
Nursing and care	200		-		-	
Total no. periods, grades 1 and 2	500		180		-	

* In Branches Ko and St, Health and hygiene forms part of food production.

After studies

Studies in the *Home Economics Branch* can lead to employment in domestic work, e.g. in non-institutional social service. Alternatively it may lead to employment involving catering and caretaking duties in boarding houses, orphanages, nursing homes and suchlike.

This branch can be followed by further training in many fields requiring a knowledge of human beings, e.g.

- Shops, department stores, service enterprise
- hygiene and care
- consumer information.

Students completing this branch can also apply for the Diet and Dietary Economics Programme and the Home Economics Teacher Training Programme at post-secondary level.

Studies in the *Consumer Education Branch with Textile Bias* can lead to

employment in arts and crafts, weaving workshops and interior furnishing enterprises. After a certain amount of practical activity, the student can undergo further training, for example, as an adviser or business manager in arts and crafts, weaving and interior design. Given supplementary sewing instruction, this branch can take the place of the previous training required for admission to the Textile Teacher Programme at post-secondary level.

The *Restaurant and Catering Branch* can lead to employment in institutional catering, for example in hospitals, schools, self-service restaurants and personnel canteens. Studies in this branch also provide a good foundation for further training in the sector.

Students who have completed this line and taken English as an optional subject in grades 1 and 2 thereby acquire general eligibility for post-secondary studies.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Municipality

Date

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Consumer Line

Branch	Course of studies (complete, reduced or augmented)	Study route code
		8 3 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S	Child studies			9 2 1 0 0
Literature and general languages			6 5 6 0 L	Diet education			9 1 4 6 0
Working life orientation			5 0 1 1 0				
Physical education ..			9 0 2 0 0	Compulsory option:			
Family affairs			5 5 1 7 0				
Psychology			0 5 5 0 0				
Sociology			5 5 7 4 0	Free option			
Consumer education			9 1 4 2 0				
Production engineering			7 8 7 1 0				
Housing and environment education			9 1 1 1 0				
Textile studies			9 1 8 8 0				
Design			1 3 2 0 0				
Health and hygiene ..			4 1 3 1 0				
Economics			5 4 1 4 0	Participated (voluntary subject):			
Nursing education ..			4 1 8 5 0				

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are to be awarded for **working life orientation**. Instead a note is to be made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar or as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Consumer Line:

83300-0102 Homes Economics Branch
83300-0200 Consumer Education Branch with Textile Bias
83409-0101 Restaurant and Catering Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Two-year Distribution and Clerical Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade	Distribution Branch	Clerical Branch	
		Machine Calculating Variant ¹	Typewriting Variant ¹
2			
Grade 1	Common course		

¹ These variants are being dispensed with in certain schools (experimentally as from 1 st July 1978)

Description

Most instruction during the first year is common for all students.

Prior to grade 2 the student opts for one of two branches, focussing respectively on the distributional and clerical sectors.

A compulsory option (see time schedule) makes it possible for the student to broaden the scope of his or her studies according to preference.

A student taking the instruction and activities compulsory for this line and the branch

opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content

The characteristic subjects of this line are

business economics
typing
distribution skills/office skills.

In their studies of *business economics* the students acquire the basic knowledge which every employee in clerical and commercial or administrative sectors should possess. They study the way in which different enterprises are organized and how they work, and they are taught accounting and bookkeeping routines. Instruction also includes a review of different methods of marketing goods and services and practice in elementary mathematical calculations in problem fields concerning business economics.

In their studies of *typing* in grade 1, the students are to learn correct typing technique as per SIS standard. They also practice transcription from dictation machines, and they perform fair copy and duplicating exercises.

Studies of *distribution skills* include among other things purchasing routines, warehousing, marketing (of both goods and services), various forms of sale at wholesale and retail levels, shop design, goods display and transport. This instruction also covers practical aspects of printing, display, advertisement design etc.

The teaching subject entitled *office skills* covers the function and environment of offices, aids to internal and external communication and for other purposes, reprography, filing and planning; practical

exercises are included on these various points.

Instruction also includes practice in the use of calculating aids and a review of various types of office rationalization, e.g. form standardization and EDP.

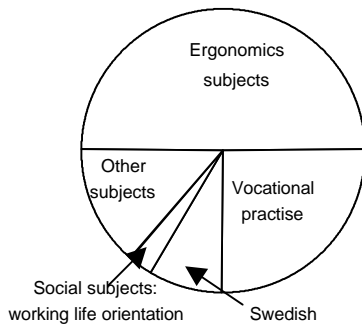
Distribution Branch in grade 2

Instruction in this branch focusses on duties in connection with goods distribution and the procurement of services in banking, travel agencies and insurance companies etc. The theoretical and practical knowledge acquired by the students during their school instruction is deepened by means of 18 periods per week of *distribution practice* within firms on an in-house basis. The greater part of this practice period is devoted to all-round training in various departments.

Clerical Branch in grade 2

Instruction in this branch focusses entirely on various kinds of office work. Students can choose between a *machine calculating* variant including 3 ppw machine calculating and machine accounting, and a *typewriting variant* including extra typing instruction for the corresponding number of periods per week.

In this branch too, students apply their theoretical knowledge to practical work in enterprise. This takes the form of 18 ppw office practice (in-house training). The greater part of this practice is devoted to all-round training in various departments.



Distribution of subjects

The pie chart shows the time allocation for the various subjects during the two grades. A great deal of time is spent on economics subjects and vocational practice. Efforts are made to integrate the various subjects.

Economic subjects = business economics, typing, distribution skills, office skills, consumer and goods education, calculating and machine bookkeeping (only calculating variant).

Vocational practice = distribution practice (Di Branch), office practice (Kt Branch).

Other subjects = physical education, reserve period, optional subject.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for working life orientation, however, Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time schedule

Subject	No. ppw in			
	Grade 1	Grade 2		
		Distribution Branch	Clerical branch	
			Machine Calculating Variant	Typewriting variant
Swedish	4	3	3	3
Working life orientation	1	1	1	1
Business education	7	3	3	3
Typing	5	-	2	5
Distribution skills	6 ¹	3 ¹	-	-
Office skills	6 ¹	-	2 ¹	2 ¹
Consumer and goods education	2	4	-	-
Calculating and machine book-keeping	-	-	3	-
Distribution practise	-	18 ²	-	-
Office practise	-	-	18 ²	18 ²
Physical education	2	2	2	2
Reserve period ³	1	-	-	-
Optional subject				
English	3	3	3	3
B- or C-language				
Religious knowledge				
Psychology				
Civics				
Consumer education				
Mathematics				
Music or drawing				

¹ The number of periods may vary depending on the optional subject taken in grades 1 and 2.

² School organization permitting, students in grade 2 may also take subjects other than those indicated in the time schedule (free option). Students in the Clerical Branch can take 2 ppw shorthand and students in the Distribution Branch can take 4 ppw textile studies. Teaching time for the practical subjects is then correspondingly reduced.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

⁴ At least one of these optional has to be taken for up to 3 periods per week for at least one school year. The students may exchange the optional subject for a vocational subject during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: School year = 40 weeks (subject to reduction for public holidays, days off etc.).

1 period per week (ppw) = 40 minutes per week.

After studies

This line of studies provides basic training for distribution and office employment. The large number of lessons in proficiency subjects and, above all, the practical experience obtained during grade 2 facilitate immediate application for employment and/or further training by means of sectoral courses.

The *Clerical Branch* prepares students for work in offices of various kinds, for example in industry, banking, insurance, forwarding agencies, trade, travel agencies, municipal and national administration, State enterprises etc.

The *Distribution Branch* prepares students primarily for employment in retail and wholesale trade in various sectors, but also for employment in service enterprises, for example.

Students completing this line of studies and taking English as an optional subject in grades 1 and 2 thereby attain general eligibility for admission to post-secondary studies.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Distribution and Clerical Line

Branch/Variant	Course of studies (complete, reduced or augmented)	Study route code
		3 3 0 0 0 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S				
Literature and general languages			6 5 6 0 L				
Working life orientation			5 0 1 1 0	Compulsory option:			
Physical education			9 0 2 0 0				
Business economics			2 0 2 4 0				
Typing			2 1 5 0 0	Free option:			
Distribution science ..			2 1 1 4 0				
Office skills			2 1 3 8 0				
Consumer and goods education			9 1 4 0 0				
Machine calculating and machine book-keeping			2 1 4 9 0				
Distribution practice			2 1 1 5 0				
Clerical practice			2 1 4 0 0	Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first live digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Distribution and Clerical Line:

33002-0105 Distribution Branch
33001-0116 Clerical Branch, Machine Calculating variant
33001-0125 Clerical Branch, Typing variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first live digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Economics Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Please note: 25 per cent of the places in this line are reserved for applicants with either at least three years' job experience and good testimonials from a vocational sector relevant to these studies or having completed at least two years' full-time upper secondary or vocational school studies within a relevant vocational field.

Structure of studies

Grade 2	Common course
Grade 1	

Description

The purpose of this line is to widen the student's general knowledge and to provide basic economic education with a view to employment in enterprise and in public and private administration.

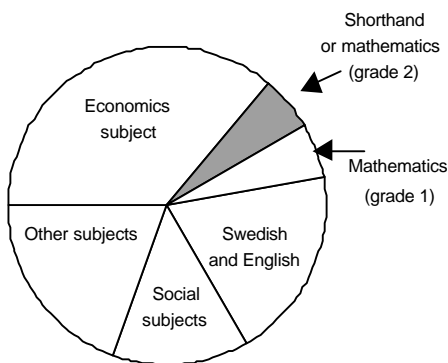
A compulsory option (see time schedule) makes it possible for the student to widen the scope of his or her studies according to personal preference.

A student taking the instruction and activities compulsory for this line thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects

The pie chart shows the time allotted for different subjects in the two grades. The shaded segment refers to shorthand or mathematics, depending on the subject chosen by the student in grade 2. (Shorthand in grade 1 is included in "economics subjects".) Efforts are made to integrate the various subjects.

Economics subjects = business economics, typing and office skills, shorthand.

Social subjects = religious knowledge, civics.

Other subjects = music/drawing, physical education, reserve period, optional subject.

The characteristic subjects of this line are

business economics

typing and office skills

which all students take in both grades, and

shorthand¹ and mathematics

which all students take in grade 1, with the possibility of continuing with one of them during grade 2.

Swedish and English business correspondence are studied as part of Swedish and English.

Economic education is mainly provided in the form of *business economics*. Its purpose is to equip the students with the basic knowledge which every employee in the clerical and commercial sector or the administrative sector ought to possess.

The students study work within the various functions of an enterprise, such as purchasing, marketing, finance and administration. This subject is also intended to convey a general picture of the enterprise and its role in society.

In *typing and office skills* the students are given basic training in typing and machine calculation. They also study the functioning of the office, its personnel and environment, form procedures, filing and reprographic aids, EDIP and external and internal communications.

In *shorthand* the students learn the elements of independent shorthand notation, Swedish dictation and the transcription of shorthand notes. Those who choose to take shorthand in grade 2 naturally acquire broader knowledge and further practice.

In these studies, great importance is also attached to developing the students' communicative skills, for example in languages (English being taken by all students) and in mathematics.

The student can take a second foreign language in the form of an optional subject (see time schedule).

The purpose of language teaching is to increase the students' ability to understand the spoken and written language and to develop their practical command of the language.

In *mathematics* the students are taught a number of elementary concepts in the theory of probability and in statistics, they practice the use of calculation aids, and they are acquainted with the uses of mathematics in the economic sphere.

Students choosing to take mathematics in grade 2 acquire further knowledge which among other things includes instruction in such matters as the theory of probability and logarithms.

¹ In some schools shorthand can be exchanged for additional typing and office skills (under an experimental scheme in progress since 1 st July 1978).

Marks

Marks are awarded for all subjects except where otherwise indicated.

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	No. ppw in	
	Grade 1	Grade 2
Swedish	4	4
English, general or special course	3	4
Religious knowledge	-	2
Civics	3	3
Mathematics	3	3/0 ¹
Shorthand	2	0/3 ¹
Business economics	9	8
Typing and office skills	4	3
Music or drawing ¹	-	2
Physical education	3	2
Reserve period ³	1	1
Optional subjects		
B- or C-language	3	3
Music (aesthetic speciality)		
Drawing (aesthetic speciality)		
Handicraft		
Drama		
Psychology (grade 1 only)		
Consumer education (grade 2 only)		

¹ Choice between mathematics and shorthand in grade 2.

² One of these subjects is chosen for grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies. Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

⁴One of these optional subjects is chosen for 3 ppw.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: School year = 40 weeks (subject to a certain loss of time due to public holidays, days off etc.).

1 period per week (ppw) = 40 minutes per week.

After studies

The two-year Economics Line provides basic training for duties in enterprise and administration.

This line also provides a good foundation for further studies, and it confers general eligibility for admission to postsecondary education.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Economics Line

Course of studies (complete, reduced or augmented)

Study route code

3 3 7 3 9 0 0 0 4

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S	B, General course			
Literature and general languages			6 5 6 0 L	B, Special course			
English				C			
General course			6 0 3 0 A				
Special course			6 0 3 0 S	Psychology			0 5 5 0 0
Civics			5 4 8 0 0	Consumer education			9 1 4 2 0
Mathematics			3 5 5 0 0	Handicraft			1 2 7 0 0
Physical education			9 0 2 0 0	Drama			1 1 1 0 0
Religious knowledge			0 6 7 0 0	Music, aesthetic speciality			1 0 5 4 0
Business economics			0 2 4 0 0	Drawing, aesthetic speciality			1 3 8 2 0
Typing and office skills			2 1 5 2 0				
Shorthand			2 1 7 5 0				
Music			1 0 5 0 0				
Drawing			1 3 8 0 0	Participated (voluntary subject)			

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar mark is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B= B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

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Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

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6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Electro- Telecommunications Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Electricians Branch	Telecommuni- cations Maintenance Branch	Steering and Automatic Regulation Branch	Telecommunications Fitters Branch	Office Machinery Repairs Staff Branch
Grade 1	Common course				

Description

Instruction during the first year is the same for all students. The purpose of this instruction is to acquaint students with the occupations represented by the five branches of this line.

From the second term onwards, studies become more specialized, focussing on the branches presented in the structural chart above.

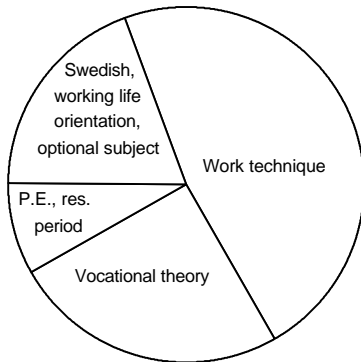
A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. (The second term of the Telecommunications Fitters Branch involves more work technique and less vocational theory; see time schedule.)

The time allocation for the characteristic subject, electro-telecommunications engineering, is increased in grade 2; see time schedule.

Efforts are made to integrate the various subjects.

P.E. = Physical education
res. period = Reserve period.

The characteristic subject of this line is

electro-telecommunications engineering

which comprises work technique and vocational theory as illustrated in the time schedule.

In their studies of electro-telecommunications engineering the students team among other things to work with the different materials, machines and measuring instruments which they will encounter in their future careers. They make parts out of various materials, they learn how to install simple telecommunications equipment and trace faults in apparatus and lines, they acquire some degree of familiarity with control techniques etc They also learn how to use instructions, charts, drawings and tables and how to implement various safety and security regulations.

In the practical part of their instruction the students form various groups to deal with assignments aimed among other things at giving them practice in the team work which occurs at a workplace. They are enabled to try their hand at being "safety delegates", taking charge of tools, machinery, facilities and so forth.

Electricians Branch

Work technique in this branch is to a great extent taught by means of practice assignments in a school workshop. Electrical installation practice involves the use of learning places where among other things the student learns how to fit cables to wood, concrete and brick and how to connect up various types of electrical consumer apparatus. If possible, the student can have about 2 months' (400 hours') environmental practice with firms in the trade.

Telecommunications Maintenance Branch

Students taking this branch receive a grounding in general electronics. Instruction is to a very great extent concerned with connections and circuits, the aim being to make students closely familiar with matters of function and construction. Particular

importance is attached to preparing the students for the situation with which they will be confronted when they have to locate and rectify a fault with the aid of a circuitry chart and service instructions.

Steering and Automatic Regulation Branch

Students taking this branch team among other things to install, repair and maintain instruments for the automatic control of machinery in processing and engineering plants. Instruction is to a very great extent concerned with apparatus, connections and circuits used in control and regulating techniques and in electronics. Here as in the Telecommunications Maintenance Branch, special emphasis is laid on preparing the students for service operations of various kinds, and among other things the instruction includes mechanics, hydraulics, pneumatics, control and regulating techniques (machinery and processing), electronics, electrical engineering and related plant and peripheral equipment.

Telecommunications Fitters Branch

In this branch, instruction in work technique takes the form of in-plant training, which means that work on the connection, installation and testing of electronics apparatus is done at firms outside school.

The students team to assemble and adjust various items of telecommunications equipment. With the aid of circuitry charts, they learn to install various kinds of low voltage apparatus, trace faults, carry out repairs and connect and braise.

Office Machinery Repairs Staff Branch

Students taking this branch are trained in the servicing and maintenance of typewriters, calculating machines, dictating machines and copying machines etc.

The students team to dismantle and assemble office machinery of various kinds (including electronic machinery), to make adjustments, trace faults and carry out repairs, and they are given practice in connecting up, installing and soldering.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	Total no. lessons in				
	Term 1	Term 2		Grade 2 (terms 3-4)	
		Branches Ei, TI, Sr and Km	Tm Branch	Branches Ei, TI, Sr and Km	Tm Branch
Swedish	80	80	80	-	-
Working life orientation	20	20	20	40	40
Electro-telecommunications engineering					
Work technique	320 ²	320 ²	400 ²	880 ²	1 080 ²
Vocational theory	220	220	140	400	200
Physical education	40	40	40	80	80
Reserve period ³	20	20	20	-	-
Optional subjects					
English	4	60	60	120	120
B- or C-language ⁴					
Religious knowledge					
Psychology					
Civics					
Consumer education					
Mathematics					
Music or drawing					

Ei = Electricians
 TI = Telecommunications Maintenance
 Sr = Guiding and Regulating Devices
 Tm = Telecommunications Fitters
 Km = Office Machinery Repairs Staff

¹ *Electro-telecommunications engineering* includes the following

TERM I

Bench and machine work
 D.C.
 Electrical installations
 Telecommunications installations
 Control and regulating equipment

TERMS 2 AND 3-4

V - Electricians Branch

A.C.
 Electrical installations
 Telecommunications installations
 Control equipment

TI - Telecommunications Maintenance Branch

A.C.
 Telecommunications installations
 Electronic equipment
 Technical English

Sr - Steering and Automatic Regulation Branch

A.C.
 Bench and machine work
 Control and regulating equipment
 Electronic equipment
 Technical English

Tm - Telecommunications Fitters Branch

A.C.
 Telecommunications installations
 Electronic equipment
 Electronic work

Km - Office Machinery Repairs Staff Branch

A.C.
 Electronic equipment
 Office machinery
 Technical English

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation. Industrial and social affairs, cultural questions.

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work technique during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note:

The time allocations given in the time schedule refer to the *total number of lessons* for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this line is to confer basic knowledge and skills for employment in the electro-telecommunications field. A student completing one of the branches of this line can devote himself (or herself) to installation or maintenance work. Duties can vary considerably and may involve the installation, servicing or repair of electrical and telecommunications apparatus and plant. Employment is sometimes combined with various forms of in-plant training. Apprenticeship is governed by apprenticeship agreements.

The Electricians Branch serves among other things to prepare students for employment with various installation firms, enterprises and institutions and for employment at electricity and other power stations.

After a minimum of two years' job experience, students can qualify as electrical installation engineers within a limited range. After further job experience they can attend a specialized course conferring general qualifications. Persons who have completed this branch can subsequently specialize, for example, in lift installation, electrical engineering or marine electronics. Students who have completed this branch can also apply, for example, for admission to advanced specialized courses in industrial electrical engineering, processing automation and sawmill technology.

The Telecommunications Maintenance Branch serves among other things to prepare students for employment in the radio and television broadcasting sector and as telecommunications engineers with the National Telecommunications Administration. This branch also provides a basis for specialization, for example, in electronics and electronic communications. The student can, for example, apply for an advanced

specialized course in automation techniques, electronic communications and processing automation.

The Steering and Automatic Regulation Branch serves among other things to prepare students for employment with firms supplying regulating installations or firms making use of the same, e.g. in processing industry, at steelworks, paper and pulp mills, chemical and chemical engineering plants and in the engineering industry, using NC and other automatic machinery with electronic controls.

On completion of this branch students can apply for an advanced specialized course in automation techniques, processing automation and sawmill technology.

The Telecommunications Fitters Branch serves among other things to prepare students for employment with industrial enterprises manufacturing telecommunications and electronic equipment used, for example, in telephone and radio communications, air and marina navigation, data processing and the construction of apparatus in laboratories and experimental workshops within the telecommunications sector.

The Office Machinery Repairs Staff Branch serves among other things to prepare students for employment with firms selling and/or repairing and servicing office machinery, e.g. typewriters and calculating machines, copying machines and punch-card machines, and for employment with firms and institutions maintaining considerable machinery line-ups and having their own service shops.

Students completing this branch can apply for an advanced specialized course in automation techniques and computer servicing.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr. mth. date, identity digits)

Two-year Electro-Telecommunications Line

Branch

Course of studies (complete, reduced or augmented)

Study route code

4 | 3 | 4 | 1 | 0 | | | | |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education ..			9 0 2 0 0				
Electro-telecommunications engineering			7 2 1 1 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/headmistress

Instructions overview

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.
C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first live digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Electro-Telecommunications Line:

43411-0106 Electricians Branch
43413-0102 Telecommunications Maintenance Branch
43415-0107 Steering and Automatic Regulation Branch
43414-0100 Telecommunications Fitters Branch
43416-0105 Office Machinery Repairs Stall Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required.
A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first live digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Food Manufacturing Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Restaurant service variant	Catering variant	Restaurant variant	Baking and pastry making variant	Butchering variant	Food processing variant
Grade 1	Restaurant and Catering Branch			Food Production Branch		

Description

Instruction during the first year is the same for all students, the purpose being to acquaint all students with the occupations and duties represented by the three variants in each branch in grade 2.

Instruction in grade 2 is divided into the variants indicated above.

A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

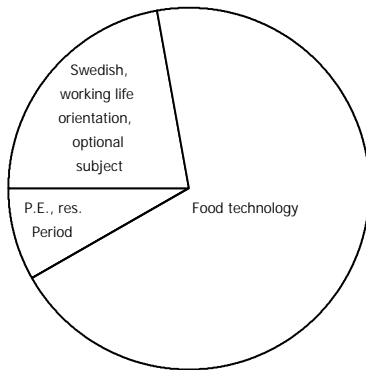
A student taking the instruction and ac-

tivities compulsory for this line and the branch/variant opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allotted for different subjects in grade 1. The time allocation for the characteristic subjects of this line, food technology, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education.
Res. period = Reserve period.

The characteristic subject of this line is

food technology

which comprises work technique and vocational theory as indicated in the time schedule.

This instruction is divided into branches from the first year. Its purpose is to provide the students with knowledge and skills relating to the preparation and production of foodstuffs, both as a craft and on an industrial scale.

In the Restaurant and Catering Branch, students learn among other things to prepare and serve meals and they study forms of accommodation and the care and tending of machinery and equipment in catering facilities and in restaurants and hotels.

In the Food Production Branch, students learn, for example, about baking and butchering, the manufacture of dairy, chocolate, brewing and tinned products, and the care and tending of food manufacturing equipment. Students in both these branches learn to implement directions, rules and regulations concerning foodstuffs and hygiene.

In order to give the students a realistic picture of their work, instruction in work technique and vocational theory usually takes place at what are termed learning places.

Instruction here is usually based on a particular job, working method or product, with the students performing tasks which they will encounter in their future careers.

In the practical part of the instruction, the students form various groups to deal with assignments aimed among other things at giving them practice in the team work which occurs at a workplace. They are enabled to try their hand at being 'safety delegates', taking charge of tools, machinery, facilities and so forth.

Restaurant Service Variant

In this variant students learn among other things various principles and methods for serving food and drink, various forms of service, table laying and table arrangements, and in this connection they study the functioning, use and care of material, equipment and serving premises. Various practical exercises enable the students to acquire proficiency in serving operations and to practise various serving systems. Some instruction can be based on a restaurant outside the school, so as to make these exercises as realistic as possible.

Catering Variant

Instruction in this variant is designed to convey knowledge and proficiency relating to food production in the catering trade. Among other things the students learn the importance of a properly balanced diet, large-scale methods of cooking and preserving, the principles of rational cookery and the use of catering machinery and utensils. Practical exercises of various kinds enable the students to acquire proficiency in cooking for large numbers. Just as in the Restaurant Service Variant, this instruction can be partly based on an external work point.

Restaurant Variant

In this branch the students learn, for example, various cookery methods and in this connection the commonest standard dishes. They are also familiarized with the principles of rational cookery, arrangement and dispensing, the composition of menus and the storage and care of foodstuffs as well as the use of convenient food products. Here as in the Restaurant Service and Catering Variants, the students' practical exercises can be partly based on a work point away from school.

Baking and Pastry-making Variant

The purpose of instruction in this branch is to equip the students with knowledge and proficiency relating to the production of different types of bread and pastries, such as bread and buns, biscuits, large and small cakes and so on. Among other things the students learn both manual and mechanized working methods, packaging, storage and refrigeration and deep-freezing of various convenient food products. Most instruction is provided at school but can be wholly or partly based on a work point away from school.

Butchers Variant

Instruction in this variant is designed to equip the students with knowledge and skills relating to the preparation of various meat products. Among other things the students learn how to butcher and joint various types of meat, various methods for the production of cured meats and, in this connection, salting, smoking and boiling, various methods of storage and the use and care of utensils, apparatus and machinery.

The students also receive basic instruction concerning cookery and packaging methods. Most instruction is provided at school but can be wholly or partly based on a work point away from school.

Food Processing Variant

Instruction in this variant refers to the brewing, dairy, chocolate, canning and baking industries and is aimed at providing students with the knowledge and skills required for controlling and monitoring the production of foodstuffs in

high technology food industries. The students also learn to operate and service machinery of various kinds, they study packaging and storage techniques and they are taught to keep records, take samples and carry out certain laboratory tests. Most of this instruction takes place within industry.

Time schedule

Subject	Total no. Lessons in	
	grade 1	grade 2
Swedish	160	-
Working life orientation	40	40
Food technology ¹	1080 ²	1280 ²
Physical education	80	80
Reserve period ³	40	-
Optional subject	120	120
English		
B- or C-language		
Religious knowledge		
Psychology		
Civics		
Consumer education		
Mathematics		
Music or drawing		

¹ Food technology includes the following items

GRADE 1

Restaurant and Catering Branch

Introduction
Food science and nutrition
Hygiene
Furnishing and equipment materials
Food production
Hygiene for working and storage premises
Service
Forms of accommodation
Economics

Food Production Branch

Introduction
Food science and nutrition
Hygiene
Mechanical engineering
Production
Production methods
Ergonomics
Economics

GRADE 2

Se - Restaurant Service Variant

Food science and nutrition
Drinks
Service
Food production
Communications and co-operation techniques
Economics

Sh - Catering Variant

Food science and nutrition
Food production
Hygiene for working and storage premises
Service and distribution
Communications and co-operation techniques
Economics

Ra - Restaurant Variant

Food science and nutrition
Food production
Hygiene for working and storage premises
Service
Communications and co-operation techniques
Economics

Bk - Baking and Pastry-making Variant

Chemistry of baking
Food science and nutrition
Mechanical engineering
Production
Production methods
Hygiene and ergonomics
Economics

Ch - Butchering Variant

Food science and nutrition
Mechanical engineering
Slaughtering
Production
Production methods
Hygiene and ergonomics
Economics

Lp - Food Processing Variant

Food science and nutrition
Mechanical engineering
Production
Production methods
Hygiene and ergonomics
Economics

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work technique during one of the two grades.

B-language = German or French when taken by the student at elementary school.

C-language, = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total *number of* lessons for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

After studies

The Restaurant Service Variant and the *Restaurant Variant* provide basic training for the restaurant trade. Students taking the Restaurant Variant are trained for both kitchen and stillroom work. Waiting staff, kitchen and stillroom staff receive further vocational training in their workplaces.

The Catering Variant provides practical and theoretical training preparing the students for employment in the catering trade, e.g. in hospitals, with the defence establishment, at social institutions, at schools and in works canteens.

The Baking and Pastry-making Variant

prepares students for employment in industrial baking or with home bakeries and pastry-makers. *The Butchers Branch* prepares students for employment in the meat manufacturing and processing trade. The basic knowledge and skills acquired by students in these two branches are also applicable to other food manufacturing sectors.

The Food Processing Variant prepares students for employment in brewing, dairy, chocolate, canning and baking industries.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Food Manufacturing Line

Branch, variant, bias

Course of studies (complete, reduced or augmented)

Study route code

0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education ..			9 0 2 0 0				
Food technology			7 8 4 6 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Food Manufacturing Line:

83500-0107 Restaurant Service Branch
83409-0209 Catering Branch
83409-0307 Restaurant Staff Branch
43472-0108 Baking and Pastry-Making Branch
43474-0104 Butchers Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required.
A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Two-year Forestry Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Common course
Grade 1	

Description

This line is not divided into branches; all students follow the same course of instruction in both grades.

The purpose of the instruction is to equip the students with the general knowledge and skills required for various duties in forestry or neighbouring sectors-

A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

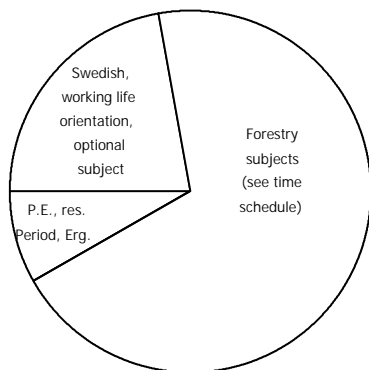
A student taking the instruction and ac-

ivities compulsory for this line thereby takes a *complete course of studies*.

A student can also, take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocations for logging and forestry production are increased in grade 2 (see time schedule).

P.E. = Physical education
Res. p. = Reserve period
Erg. = Ergonomics

The characteristic subjects of this line are

mechanical engineering

forestry production

logging

in *mechanical engineering* the students learn, for example, how various forestry machines and implements are designed and how they are to be used. They also learn to carry out repairs and servicing jobs on these machines and implements.

Instruction in this subject includes such items as engines, hydraulics, vehicle studies, manual implements (motorized and non-motorized), machinery, and repairs and servicing.

Great importance is attached to enabling the students to perform realistic exercises on different machines and implements and thus teaching them to read and interpret directions and instructions and to implement various safety and security regulations.

Forestry production includes such teaching items as soil science, botany, economic geography for forestry, and the planting and tending of stands. Among other things the students learn in the course of this instruction the importance of the soil as a factor in forest growth and ways of improving output. They learn to identify different types of damage to growing timber, together with means of prevention and cure, and they also learn to make use of forestry planning.

The students spend a great deal of their time on practical exercises of various kinds in authentic surroundings. Work of

this kind includes, for example, soil and vegetation surveys, investigations concerning the influence of various chemical substances on forestry, the clearing of falling areas, planting and marking.

Logging includes such items as planning, felling, transport and forestry rationalization. The students practise drawing up detailed plans for small felling areas and carrying out felling operations of different kinds, they learn to drive forestry machines of different kinds and to draw up elementary financial estimates with reference to current forestry agreements.

Practical exercises are often arranged in such a way that students plan felling operations, clear the felling area before terminal felling takes place, fell the timber and then plant new stands, all these various operations being performed in one and the same area.

-The purpose of making the students work in a single area in this way is to inculcate an appreciation of the interdependence of the various operations and to demonstrate the importance of correct planning.

Instruction in *measurement and wood technology* enables the students to learn how to calculate the volume and estimate the quality of different stands and species, to lay off timber into log lengths and to identify common types of damage to timber.

In nature *conservancy* the students receive instruction in matters concerning environment conservation, landscape conservancy and game and fish conservancy.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time Schedule

Subject	Total no. lessons in	
	Grade 1	Grade 2
Swedish	160	-
Working life orientation	40	40 ¹
Mechanical engineering	360 ¹	280 ¹
Forestry production	200 ¹	240 ¹
Logging	320 ¹	560 ¹
Measurement and wood technology	80	80
Nature conservancy	40	80
Ergonomics	80	40
Physical education	80	80
Reserve period ²	40	-
Optional subject		
English		
B- or C-language		
Religious knowledge		
Psychology		
Civics		
Consumer education		
Mathematics		
Music or drawing		
	120	120

¹ The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

² Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

³ **At least one of these optional subjects** has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional

subject for work technique during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total numbers of lessons for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this line is to confer the basic knowledge and skills required for employment in forestry in connection with silviculture, felling and the transportation of timber. Students can, for example, obtain employment with forestry enterprises, forest owner associations and the National Forest Service.

On completion of their basic education, students can apply for employment or go

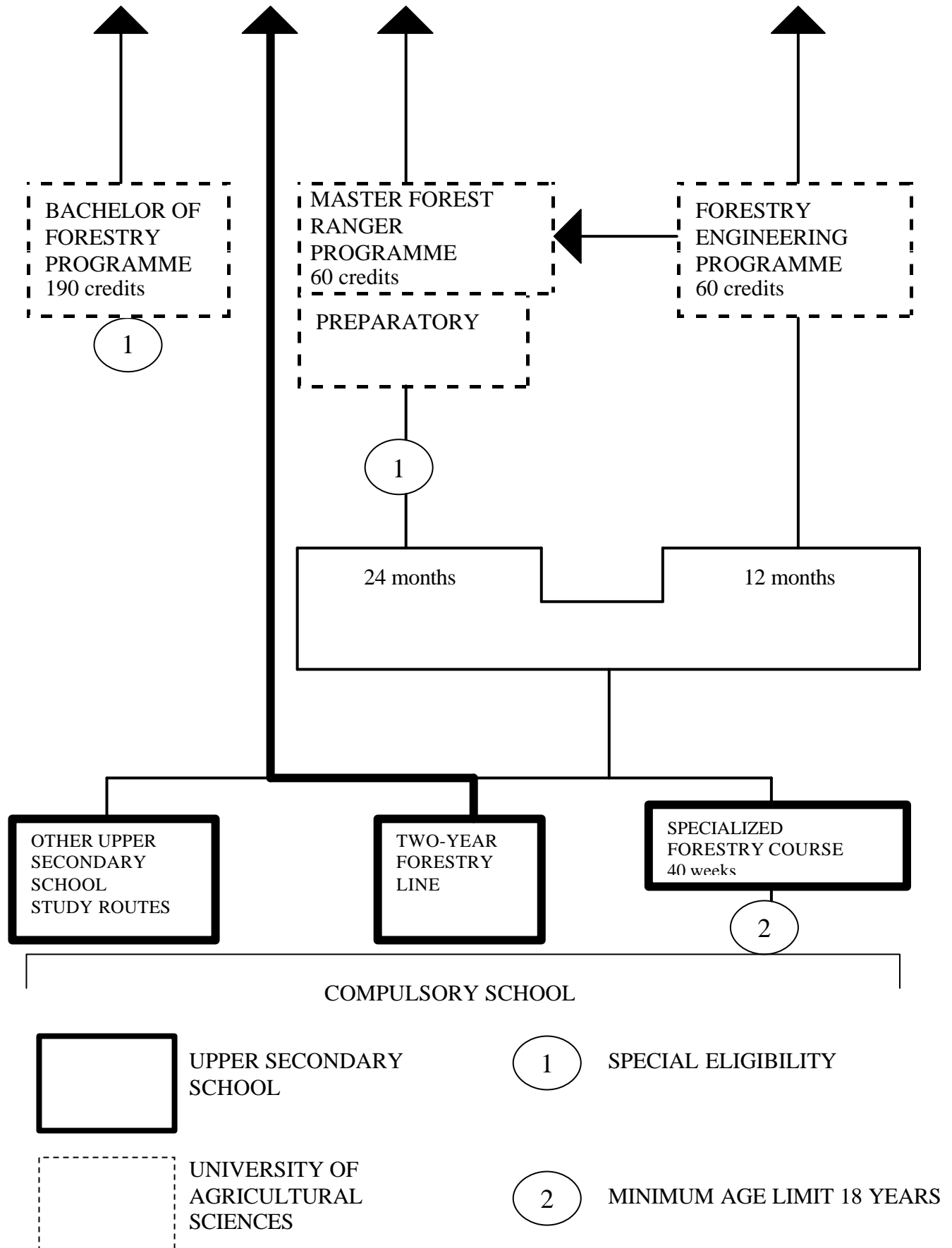
on to further studies. In most cases, however, it is advisable for a student to obtain job experience before going on to further studies. Further training is obtainable in the form of mechanical engineering courses, forestry economics courses, foremen's courses or forestry engineering courses.

Also see chart overleaf.

Course of studies – forestry

VOCATIONAL ACTIVITY

Further training and extension training,



Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling

Municipality

Date

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Forestry Line

Course of studies (complete, reduced or augmented)	Study route code
	7 3 3 2 9 0 0 0 5

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Compulsory option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0	Free option			
Mechanical engineering			7 5 5 5 0				
Forestry production			3 3 7 4 0				
Logging			8 8 1 5 0				
Measuring and wood technology			8 5 5 4 0				
Nature conservancy			3 0 5 8 0				
Ergonomics			5 0 3 6 0				
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Terminology (SUN).
The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Horticultural Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Common course
Grade 1	

Description

This line is not divided into branches; all students receive the same instruction throughout both grades.

The purpose of this line is to give the student the general knowledge and skills required for various duties in the horticultural sector.

A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

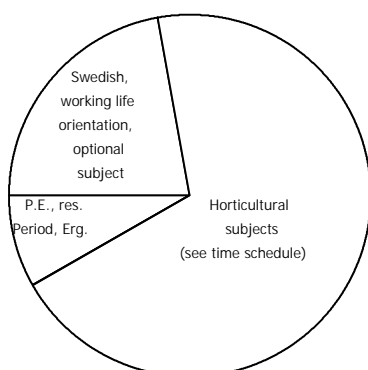
A student taking the instruction and activities compulsory for this line thereby takes a **complete course of studios**.

A student can also take one or more subjects over and above the complete course of studios, in which case he or she is said to take an **augmented course of studios**.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a **reduced course of studios**.

HORTICULTURAL LINE

Content



Distribution of subjects in grade 1

The pie chart shows the time allotted for different subjects in grade 1. The time allocation for landscape construction and amenity horticulture, outdoor cultivation, greenhouse cultivation and applied mechanics is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = physical education
Res. period = reserve period
Erg. = ergonomics

Marks

The characteristic subjects of this line are

landscape construction and amenity horticulture
outdoor cultivation
greenhouse cultivation
applied mechanics

This line provides general basic education in both landscape construction and amenity horticulture and horticulture.

In landscape **construction and amenity horticulture**, the students learn to use and take care of the technical aids used for the laying out and maintaining gardens, parks, churchyards, green areas in residential districts, sports facilities, recreation areas etc. Among other things they learn to survey areas, to level and stake out, to prepare and read maps and drawings, to build walls and steps, to lay tiled paths, to build fences and to lay out and maintain lawns etc.

Great emphasis is laid on plant studies and on methods of planting and caring for vegetation. This subject also includes instruction in nature conservancy, landscape conservation and environment protection.

In **outdoor cultivation** the students learn to cultivate vegetables, fruit, berries and nursery plants. The various jobs are practised and product development observed in special cultivation areas. Outdoor cultivation also includes instruction in botany, soil science, plant nutrition and economics.

In **greenhouse cultivation** the students take part in cultivation of cut flowers, pot plants and vegetables. All schools have modern greenhouse facilities where the students actively participate in the work of cultivation. This subject also includes instruction in building and in greenhouse protection.

In **applied mechanics** the students learn to use and take care of the machinery used by horticultural enterprises and parks authorities. A great deal of time is spent on tractor driving and other tractor work, and students have the opportunity of taking tractor driving licences at school. In addition to tractor work, they can also practise using and caring for rotary cultivators, motor mowers of various kinds and a wide variety of other machinery.

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for working life orientation, however. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time schedule

Subject	Total no. lessons in	
	Grade 1	Grade 2
Swedish	160	-
Working life orientation	40	40
Landscape construction and amenity horticulture	280 ¹	360 ¹
Outdoor cultivation	280 ¹	320 ¹
Greenhouse cultivation	320 ¹	360
Applied mechanics	160	200
Ergonomics	40	40
Physical education	80	80
Reserve period ¹	40	-
Optional subject	120	120
English		
B- or C-language		
Religious knowledge		
Psychology		
Civics		
Consumer education		
Mathematics		
Music or drawing		

¹ The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for postsecondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

² Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line studies.
Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

³ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for a vocational subject during one of the two grades.

B-language = German or French when studied by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note. The time allocations given in the time schedule refer to the total number of lessons for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students: cf. note 1. For these various reasons, the exact loss of time cannot be computed.

After studies

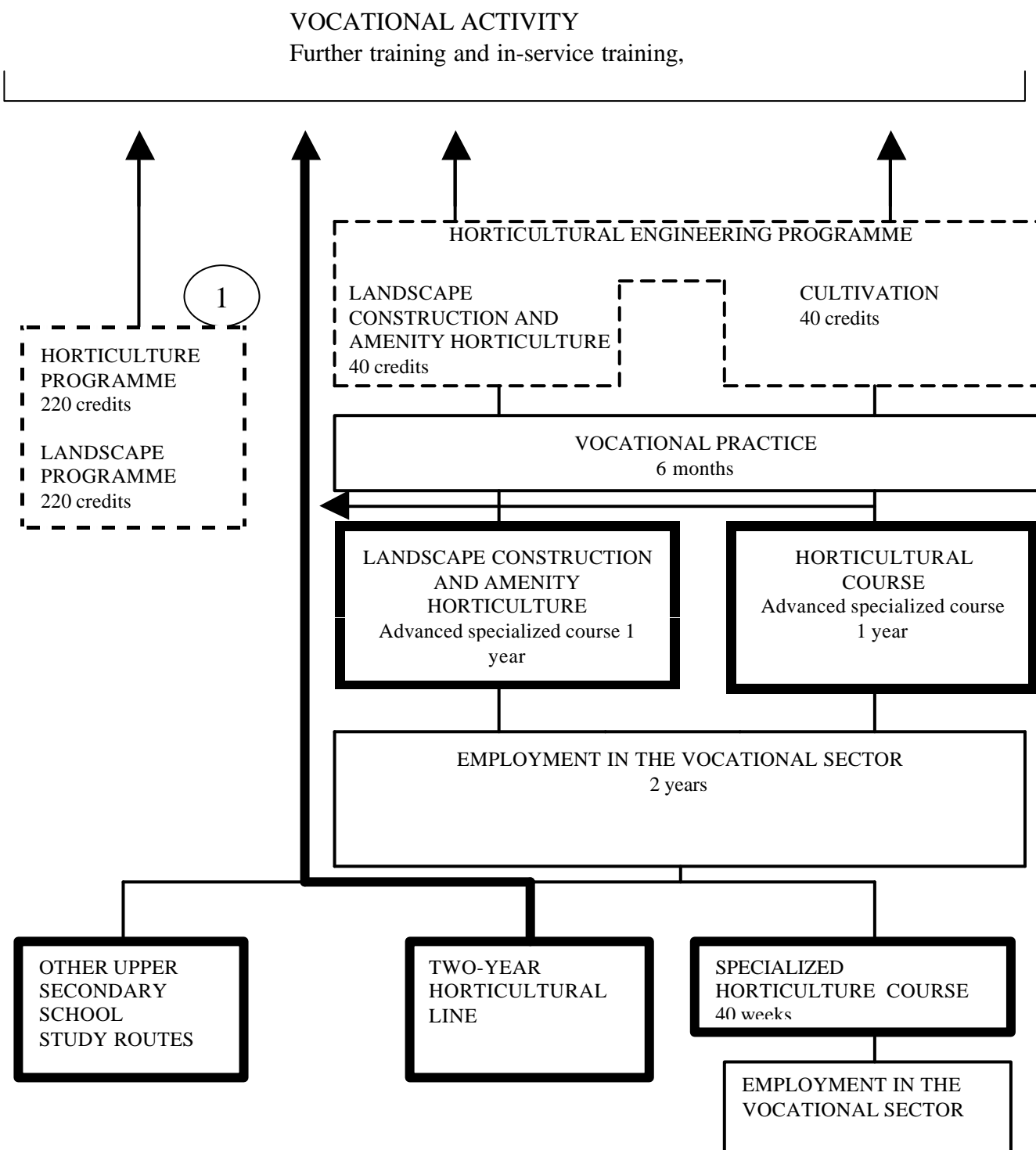
The purpose of this line is to confer the basic knowledge and skills required for work in landscape construction and amenity horticulture and in cultivation.

Studies of landscape construction and amenity horticulture lead to employment with parks authorities, landscaping enterprises, housing utilities, cemetery authorities, sports amenities and recreation areas. Studies in the cultivation sector

lead mainly to employment at nurseries, with plant protection enterprises and at experimental and research institutions.

After two years' work in the sector, the student can take a one-year advanced specialized course which can lead to further studies in the Horticultural Engineering Programme at the Swedish University of Agriculture.

See also the chart overleaf.



Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling

Municipality

Date

Surname, first name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Horticultural Line

Course of studies (complete, reduced or augmented)

Study route code

7 3 2 3 0 0 0 0 5

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Compulsory option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				
Landscape construction and amenity horticulture			7 0 6 5 0	Free option:			
Outdoor cultivation			3 3 1 7 0				
Greenhouse cultivation			3 3 8 7 0				
Applied mechanics			7 5 5 5 0				
Ergonomics			5 0 3 6 0				
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to Prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1972:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, (4) of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following:

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, (4), the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Motor Engineering Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Motor Mechanics Branch	Plant Mechanics Branch	Spare-parts Service Branch	Aircraft Mechanics Branch	Transport Technology Branch ¹
Grade 1	Common course				

¹An experimental branch, introduced with effect from the school year 1978/79

Description

Instruction during the first year is the same for all students. The purpose of this part of the course is to acquaint all students with the occupations represented by the five branches in grade 2.

Prior to grade 2 the student opts for one of the five branches, whereupon instruction focusses on the areas indicated in the structural summary above.

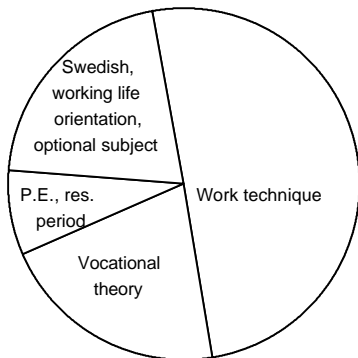
A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, motor engineering (see time schedule), is increased in grade 2. Efforts are made to integrate the various subjects.

P.E. = Physical education

Res. period = Reserve period.

The characteristic subject of this line is

motor engineering

which comprises work technique and vocational theory as indicated in the time schedule.

In their studies of motor engineering the students learn among other things how various vehicles and machines are constructed, together with their principles and modes of operation. They also receive basic training in carrying out servicing operations of different kinds. In vocational theory they learn among other things to read and interpret directions, instructions, tables etc. and to implement various safety and security regulations.

Instruction is arranged in an ascending order of difficulty, so that the students begin by learning the basic rules for using various materials, tools and instruments, as well as trying their hand at locating, discovering and rectifying faults.

In the practical part of their instruction the students form various groups to deal with assignments aimed among other things at giving them practice in the team work which occurs at a workplace. They are enabled to try their hand at being 'safety delegates', taking charge of tools, machinery, facilities and so forth.

Motor Mechanics Branch in grade 2

Instruction in this branch focusses on repair techniques.

In order to make the instruction as realistic and practically useful as possible, work is often done on customers' cars.

The students receive training in the servicing and maintenance of different engines, electrical systems and instruments, transmissions, braking systems, steering gears and chassis. Instruction also includes tool care, welding and brazing.

Plant Mechanics Branch in grade 2

Instruction in this branch mainly corresponds to the instruction provided in the Motor Mechanics Branch.

This branch also includes instruction concerning certain special machines such

as roadmaking machinery, lifting gear, power saws and forestry and agricultural machinery. Important topics include, for example, instruction concerning the diesel engine, hydraulic systems and welding repairs.

Spareparts Service Branch in grade 2

In this branch, instruction in work technique, takes the form of in-plant training with firms outside the school. The pupils circulate within the firm between various workplaces such as the warehouse, the counter, the goods reception etc., and in this way they gradually build up their knowledge and skills. Among other things they also learn warehouse technique and calculating, goods reception and storage, salesmanship and dispatching operations, warehouse accounting and purchasing, commerce and book-keeping.

Aircraft Mechanics Branch in grade 2

This branch involves more theoretical studies than other branches. Among other things it includes physics, electricity and aerodynamics. The students study the regulations apply to civil aviation, the construction and working of aircraft and various control and navigation systems. They are given instruction concerning hydraulic and pneumatic systems, electrical systems and instrumentation systems, as well as the appurtenant engines and installations. In addition they carry out practical exercises, e.g. checks, adjustments and certain repairs.

Transport Technology Branch in grade 2

This branch was experimentally introduced with effect from the school year 1978/79. At present it comprises 160 student places throughout the country.

Students taking this branch learn to drive different types of vehicle and machine, they learn how to load and unload and they study the organization of transport operations. They also study questions concerning occupational safety and health, the environment and road safety.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time schedule

Bm = Motor Mechanics
Mm = Plant Mechanics
Rs = Spareparts Service
Fm = Aircraft Mechanics
Ts = Transport Technology

Subject	Total no. lessons in		
	Grade 1	Grade 2	
		Branches Bm, Mm, Rs and Ts	Fm Branch
Swedish	160	-	-
Working life Motor orientation	40	40	40
Motor engineering			
Work technique	800 ¹	1 080 ¹	800 ²
Vocational theory	280	200	480
Physical education	80	80	80
Reserve period ³	40	-	-
Optional subject			
B- or C-language	120	120	120
Religious knowledge			
Psychology			
Civics			
Consumer education			
Mathematics			
Music or drawing			

¹ Motor engineering includes the following, among other things.

GRADE 1

Vehicle design and construction. Drawings, sketches and charts.⁴
Elementary mechanics.
Materials science.
Engines
Electrical systems and instruments
Power transmission
Brakes
Front suspension and steering
Suspension and wheels
Body
Bench work
Machine work
Welding - brazing

GRADE 2

Bm - Motor Mechanics Branch

Mm - Plant Mechanics Branch

Service and maintenance

Engines

Electrical systems and instruments

Power transmission

Brakes

Front suspension and steering (BM Branch)

Steering column and steering gear (Mm Branch)

Frame, suspension and wheels

Chassis

Forestry, agricultural and contracting machinery

(Mm Branch)

Bench work

Machine work

Welding

Rs - Spareparts Service Branch

Warehouse techniques and calculating

Reception and storage of goods

Sales and dispatch

Warehouse accounting and purchasing

Commerce and book-keeping

Fm - Aircraft Mechanics Branch

Basic physical principles applicable to aircraft materials. Electrical engineering and electronics.

Applied mathematics.

Reading of drawings.

Aircraft

Hull and components

Engines

Systems and apparatus

Ts - Transport Technology Branch

Engines

Traffic Driving vehicles/implements and trailers

Loading and unloading

Site improvement and contracting work

Excavation and earth moving

Cranes and hoists

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work techniques during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Now The time allocations given in the time schedule refer to the total *number* of lessons for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this line is to provide the basic knowledge and skills required for employment in motor engineering.

The Motor Mechanics Branch prepares students for employment on the repair and servicing of various motor vehicles such as cars, lorries, buses and tractors in various kinds of repair shop.

Studies in the Mechanical Engineers Branch can lead to employment on the repair and maintenance above all of heavy vehicles, contractors' machinery and forestry and agricultural machinery, either in workshops or with firms and authorities maintaining large machinery line-ups.

The Spares Personnel Branch provides training aimed at preparing the students for such duties as the purchasing, warehousing and distribution of spares and accessories at spares depots in the motor trade, for example.

Studies in the Aircraft Mechanics Branch can among other things lead to employment in the workshops of aerospace enterprises,

airlines and the defence establishment. On completion of their training, aircraft mechanics are eligible to apply for advanced specialized courses for aircraft mechanics in the civil and military aviation sectors. The Transport Technology provides a grounding for a very wide sector:

- vehicle drivers, machine, truck and crane operators etc.
- work at terminals and in ports and on other forms of goods and cargo handling,
- employment in vehicle servicing depots and in other service sectors where a knowledge of machinery, vehicles and transportation is required.

Students completing this branch can apply for an advanced specialized course in transport management.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Motor Engineering Line

Branch

Course of studies (complete, reduced or augmented)

Study route code

4 | 3 | 4 | 0 | 4 | 0 | | | | |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				
Motor engineering			7 5 2 0 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey,"

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Motor Engineering Line:

43404-0101 Motor Mechanics Branch
43404-0209 Plant Mechanics Branch
43404-0307 Spareparts Service Branch
43404-0405 Aircraft Mechanics Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 Voluntary subject.

9 Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Music Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Common course
Grade 1	

Description

The purpose of the instruction is to equip the student with basic musical knowledge and to give him an opportunity of going on to specialized musical studies. This line also provides a broader general knowledge which can serve as a foundation of further studies of music or in other sectors.

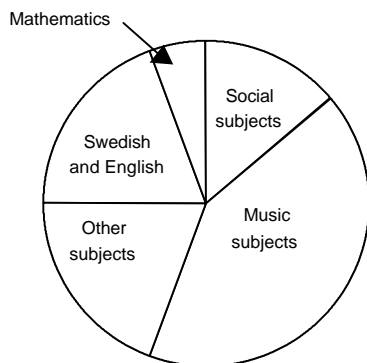
A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a subject which will increase the breadth of his education.

A student taking the instruction and activities compulsory for this line thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects

The pie chart shows the time allocations for different subjects in the two grades. Almost half the students' time is devoted to music subjects.

Social subjects = history and civics.

Music subjects = introduction to the history of music, general theory of music, movement, instruments and singing, choral singing, ensemble performance, freely chosen music work.

Other subjects = physical education, reserve period, optional subject.

The characteristic subjects of this line are

Introduction to the history of music

General theory of music

Movement

Instruments and singing

Choral singing

Ensemble performance

Freely chosen music work

The *introduction to the history of music* gives the students a general knowledge of the history of music. Among other things this knowledge is intended to be a help to the students in their own music making. The role of music in society, past and present, is an important element in studies of the history of music.

Active listening, singing and playing are important features of the instruction. The musical quotations on which instruction in the subject is based are taken from both sound recordings and live music.

The students study the main periods in the history of western music down to our own age, and they also study the music of one or more non-European civilizations. A selection is made of one or two areas which may be particularly interesting.

The students are also trained to analyse musical compositions so as to be able to identify their style, period and century, and perhaps also their composer.

The *general theory of music* is taught on a laborative basis. The students practise listening and reproduction, vocally and instrumentally. They work with notation and practise its interpretation, as well as creating their own music on a given basis.

All students, even those not intending to become pianists, are trained to use the piano as an aid and support.

The knowledge acquired by the students in their studies of the general theory of music are applied in their practical music making.

In their studies of *movement*, the students learn to express music, poetry, moods etc. They practise folk dances from other countries, formal dancing and popular dancing. They also practise the improvisation of movements to music.

Vocal and instrumental tuition is provided individually and in groups of variable size. Students can be taught up to three instruments. Singing tuition can replace one instrument. At the same time

as they learn to play and sing, the students practise the use of notation.

Students in grade 1 can choose between two alternatives:

1. Instruction in two instruments
2. Singing and one instrument.

Grade 2 students have three alternatives:

1. Instruction in three instruments
2. Singing and two instruments
3. Singing and one instrument.

In *ensemble performance* the students practise singing and playing together in groups. They try various repertoire sectors and also various types of ensemble. Groups with different emphases - e.g. chamber music, jazz and pop, improvisation and vocal music - enable the students to practise ensemble music making with different types of repertoire. During their ensemble lessons the students can be given an opportunity of trying their hand at conducting and directing the group.

In *choral singing* the students practise both unison and part singing. Choral work is stimulated by practice usually focussing on a single objective, such as an assembly or a concert. Unison singing and part singing can both be combined with dance or improvised movements and with various instruments.

The students also learn how the vocal organs are constructed, how they work and how to care for them.

In their *freely chosen music work* the students deal with aspects of music which particularly interest them. Among other things this work is meant to involve co-operation between pupils from different classes and grades, and it gives them an opportunity of planning and executing programmes for various groups in the community at large, e.g. day nurseries, nursing homes, other schools, old people's homes, churches or other institutions. Other activities occurring in the course of this subject may, for example, include instrument building, jazz dance, recording technique, everyday piano and guitar playing, folk music and self accompanied singing.

Apart from their musical studies, the students take a number of general subjects having the same content as in the Two-Year Social Line and the Two-Year Economics Line; see time schedule.

Particular importance is here attached to developing the students' communicative skills, for example in *languages*, which include compulsory English, and in mathematics. Students can also take an additional foreign

language as an optional subject; see time schedule. The purpose of language instruction is to develop the student's ability to understand the spoken and written language and to develop his or her practical command of the language.

In *mathematics* the students are familiarized with various elementary concepts in the theory of probability and in statistics, they practise the use of various calculation aids, and they study the use of mathematics in various fields of activity.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for movement, choral singing, ensemble performance and freely chosen

music work. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, the maximum award being 5.

Time schedule

Subject	Ppw	
	Grade 1	Grade 2
Swedish	4	3
English, general or special course	3	3
History	3	2
Civics	3	3
Mathematics	3	3
Physical education	1	1
Introduction to the history of music	2	2
General theory of music	2	2
Movement	2	2
Instruments and singing ¹	3 ²	4 ³
Choral singing	1	1
Ensemble performance	2	3
Freely chosen music work	1	1
Reserve period	1	1
Optional subjects		
B- or C-language	3	3
Music, aesthetic speciality		
Drawing, aesthetic speciality		
Handicraft		
Drama		
Religious knowledge (grade 2 only)	-	2
Psychology (grade 1 only)	3	-
Consumer education (grade 2 only)	-	3

¹ Instruction can be provided in singing, string playing, woodwind playing, brass playing, keyboard playing, plucked instruments and percussion. The lesson time is usually shared between two pupils.

² Alternative 1: singing 2 ~ + instrument 1 ppw
Alternative 2: singing 1 ~ + instrument 2 ~ Alternative 3: instrument one 2 ppw + instrument two 1 ppw

³ Various combinations may be chosen.

⁴ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Matters specifically relating to the Music Line may also be included.

Examples: study routes for musical education, vocational roles, the labour market, environmental questions and occupational safety and health.

⁵ One of these optional subjects has to be taken for 3 ppw. (Religious knowledge 2 ppw in grade 2).

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: Duration of school year = 40 weeks, subject to reduction for public holidays, days off etc.

1 ppw = 40 minutes/week.

After studies

The two-year Music Line provides a basic musical education which can lead to further education for various musical professions.

It can also provide a foundation for training for occupations involving work together with children and young persons.

Students completing this line can apply, for example, for the Advanced Specialized Music Course.

This line confers general eligibility for post-secondary education.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling

Municipality

Date

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Music Line

Course of studies (complete, reduced or augmented)

Study route code

1 3 3 0 9 0 0 0 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S				
Literature and general languages			6 5 6 0 L				
English							
General course			6 0 3 0 A	Choral singing			1 0 4 0 0
Special course			6 0 3 0 S	Ensemble music			1 0 1 8 0
History			0 2 3 0 0	Freely chosen music assignment			1 0 2 3 0
Civics			5 4 8 0 0	B, General course			
Mathematics			3 5 5 0 0	B, Special course			
Physical education			9 0 2 0 0	C			
General history of music			1 0 5 9 5	Religious knowledge			0 6 7 0 0
General theory of music			1 0 0 5 0	Psychology			0 5 5 0 0
Movement			1 1 7 0 0	Consumer education			9 1 4 2 0
Singing			1 0 7 7 0	Handicraft			1 2 7 0 0
String instrument			1 0 7 6 0	Drama			1 1 1 0 0
Woodwind instrument			1 0 8 1 0	Music, aesthetic speciality			1 0 5 4 0
Brass instrument			1 0 0 8 0	Drawing, aesthetic speciality			1 3 8 2 0
Keyboard instrument			1 0 3 6 0				
Plucked instrument			1 0 3 7 0				
Percussion instrument			1 0 7 3 0	Participated (voluntary subject):			

Headmaster/headmistress

Instructions overleaf

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **movement, choral singing, ensemble music and freely chosen music assignment**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Nursing Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Health and Medical Services and Geriatrics Branch	Psychiatric Care Branch	Care of Mentally Retarded Adults Variant	Child and Youth Welfare Branch	Child nursing
Grade 1	Health and Medical Services and Geriatrics Branch			Child and Youth Welfare Branch	

Description

Instruction during the first year is partly the same for all students, and its purpose is to provide all students with initial basic training in subjects or partial subjects relevant to nursing and care. This instruction is also intended to acquaint the students with the vocational functions corresponding to the various branches of this line.

In grade 1 the line is divided into a Health and Medical Services and Geriatrics Branch and a Child and Youth Welfare Branch.

Grade 2 also includes a Psychiatric Care Branch and a Care of Mentally Retarded Adults variant. In some localities the Child and Youth Welfare Branch includes a Child Nursing variant.

A compulsory option (see time

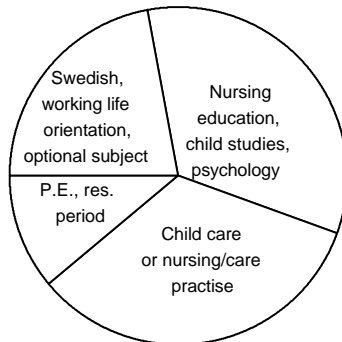
schedule) provides the student with an opportunity of widening the range of his studies according to personal preference.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allotted for different subjects in grade 1. A great deal of time is devoted to nursing and care subjects and to vocational practice. Efforts are made to integrate the various subjects.

P.E. = Physical education. Res. period = Reserve period.

Health and Medical Services and Geriatrics Branch (Hv)

The main emphasis of instruction is on *nursing education* and *nursing/care practice*.

The purpose of instruction in *nursing education* during the first year is to familiarize the students with the structure and functions of the human body, the principles and methods of various nursing and care tasks, nursing and care institutions, psychological aspects of nursing and care, the commonest illnesses, functional changes and social changes connected with ageing, and the organization and methods of public nursing and care.

This instruction is deepened and broadened in grade 2, with certain main items of nursing education becoming subjects in their own right; see time schedule.

Theoretical instruction alternates with *nursing/care practice*, which occupies about 21 weeks in each grade. In grade 1 this nursing/care practice is divided between emergency ward nursing, service in an intermediate surgical or nursing ward, long-term medical care and geriatric care.

Practice during grade 2 is divided into three periods of medical and/or surgical nursing, geriatric or long-term care and mental care.

During their practice periods, students operate as active members of working teams and share in various duties in the care of patients. Grade 1 students participate, for example, in the conduct of basic nursing and care routines, in the observation of patients, the conduct of elementary examinations and treatment, and the care of furnishings and equipment. Grade 2 students, although still under supervision, perform more independent duties in these fields and learn to perform new duties, such as participating in certain aspects of nursing administration.

Psychiatric Care Branch in grade 2 (Ps)

The basic instruction provided in grade 1 is the same as in the Health and Medical Services and Geriatrics Branch; see above.

This instruction is deepened and broadened in grade 2, with certain main items of nursing studies becoming subjects in their own right; see time schedule. In addition the students receive more advanced instruction in mental health, mental diseases and care and nursing.

Most vocational practice during grade 2 in this branch - 14 weeks to be exact -

is devoted to mental care. Another 7 weeks' vocational practice is devoted to medical or surgical nursing.

Care of Mentally Retarded Adults variant (Pu)

Instruction in this branch is for the most part identical with the instruction provided in the Psychiatric Care Branch, except that it focusses on the care of mentally retarded adults. Seven weeks of the nursing/care practice period are spent in an institution for mentally retarded adults.

Child and Youth Welfare Branch (Bu)

The main emphasis of this branch is on instruction in *child studies*, *child and youth studies* and *child welfare practice*.

In *child studies*, first-year students receive instruction concerning child development, child care and occupations for children and also concerning the family and society. This instruction is broadened and deepened in grade 2, and the subject is renamed child and youth studies. Among other things the students now study the individual needs, development and development potential of children and adolescents, daily care, the interaction of the child and its surroundings, the influence of social factors, play, occupations and leisure activities, educational questions and children and child care in the light of social and family policy.

Theoretical instruction alternates with *child welfare practice*, which occupies about 21 weeks in both grades. In grade 1 this practice is divided into 14 weeks' preschool practice and 7 weeks of other child activities. Practice in grade 2 is divided between activities with children and young persons in orphanages, pre-school institutions, leisure centres etc. and activities among mentally retarded and/or physically handicapped children and young persons for 14 + 7 weeks or 7 + 14 weeks.

During their practice periods, the students join working teams and participate in everyday activities within their respective fields.

Child Nursing variant in grade 2 (Bs)

Up to their nursing/care practice in grade 2 (after 13 weeks), students taking this variant receive the same instruction as in the Child and Youth Welfare Branch.

Nursing/care practice in grade 2 is divided into 10 weeks' care of sick children, 5 weeks' care of infants and 6

weeks' care of severely retarded/disabled children and young persons.

Nursing/care practice/Child care practice

(all branches and variants)

This vocational practice is jointly organized by the school and a hospital or institution. During their practice periods the students also attend theoretical instruction at school.

Time schedule

Subject	Total no. lessons							
	Hv Branch		PS Branch Pu Branch		Bu Branch		Bs Branch	
	Grades		Grades		Grades		Grades	
	1	2	1	2	1	2	1	2
Swedish	160	120	160	120	160	120	160	120
Working life orientation	40	40	40	40	40	40	40	40
Psychology	65	51	65	51	65	77	65	77
Social medicine		44		57		26		26
Family affairs						38		38
Anatomy and physiology		70		70		26		38
Microbiology and hygiene		51		51		13		37
Pathology		69		69		57		57
Pharmacology		45		45				
Nursing education	414 ¹	265 ¹	414 ¹	252 ¹	195 ¹	44	195 ¹	149 ¹
Child studies	78		78		297 ¹		297 ¹	
Child and youth studies						263 ¹		122 ¹
Nursing/care practice	483 ¹	525 ¹	483 ¹	525 ¹				525 ¹
Child welfare practice					483 ¹	525 ¹	483 ¹	
Music						51		51
Physical education	80	80	80	80	80	80	80	80
Reserve period ²	40	-	40	-	40	-	40	-
Optional subject	<div style="display: flex; align-items: center;"> <div style="font-size: 3em; margin-right: 10px;">}</div> <div> ¹ </div> </div>							
B- or C-language								
Religious knowledge								
Civics								
Consumer education								
Mathematics								
Music or drawing								
	≤120	≤120	≤120	≤120	≤120	≤120	≤120	≤120

Hv = Health and Medical Services and Geriatrics

Ps = Psychiatric Care

Pu = Care of Mentally Retarded Adults

Bu = Child and Youth Welfare

Bs = Child Nursing

The various branches are combined in grade 1 and, to some extent, in grade 2 also.

¹The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2. (Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch.)

² Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

³At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for a vocational subject during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total *number of* lessons for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 1. For these various reasons, the exact loss of time cannot be computed.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

As from 1979, awards for nursing and care practice and child care practice have been confined to Pass and Fail.

After studies

The Health and Medical Services and Geriatrics Branch of the Nursing Line is intended for students intending to become *nursing assistants* and *practical nurses* in health and medical services or in the care of the aged.

Instruction in the Psychiatric Care Branch 19 is intended for students intending to apply for employment as *attendants* in mental care or at institutions for mentally retarded adults.

Instruction in the Child and Youth Welfare Branch is intended for students intending to apply for employment as child supervisors in pre-school and leisure activities and at orphanages, for example, or as *attendants* at institutions for mentally retarded children or for children and young persons with other handicaps. The Child Nursing variant is intended for students interested in the hospital care of infants and sick children.

Health and medical personnel come under the supervision of the National Board of Health and Welfare, whose General Recommendations for the Training of Health and Medical Personnel state that applicants for employment as practical nurses in health and medical services, nurses in hospitals mainly concerned with mental care or in special hospitals for the mentally retarded and

attendants at other institutions for the mentally retarded must have completed the appropriate branch of the Two-Year Nursing Line of upper secondary school together with six months' probationary service in the relevant field of activities.

Instruction in the Nursing Line also provides a foundation for further training in the nursing and care sector. After a minimum of six months' employment, a student completing the Health and Medical Services and Geriatrics Branch or the Psychiatric Care Branch can apply, for example, for post-secondary studies, viz. the Nursing Line, 63 credits, or the Social Services Line (Alternative Course of Studies), 60 credits.

The Child and Youth Welfare Branch corresponds to the practical requirements for admission to training courses for child care teachers, pre-school teachers, social pedagogues and recreational pedagogues.

Students completing the Child Nursing variant can apply, after not less than six months' service, for admission to the Nursing Line of post-secondary studies, 73 credits.

Students completing this line and taking English as an optional subject in grades 1 and 2 acquire general eligibility for post-secondary studies.

Alterations

The terms of reference of the Upper Secondary Education Commission include a review and revision of studies in the Nursing Line. Certain experimental activities involving revised syllabi and time

schedules for the Nursing Line have been in progress since the school year 1978/79 and further experimental schemes may be introduced.

Students completing the Nursing Line will remain eligible to apply for the same appointments as hitherto.

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digit)
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Two-year Nursing and Care Line

Branch/Variant	Course of studies (complete, reduced or augmented)	Study route code
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Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Nursing/Care practice			
Swedish language			6 5 6 0 S				4 1 8 7 0
Literature and general languages			6 5 6 0 L	Child care practice			9 2 0 9 0
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0	Compulsory option			
Psychology			0 5 5 0 0				
Social medicine			4 2 8 6 0				
Family affairs			5 5 1 7 0	Free option			
Anatomy and physiology			4 2 0 5 0				
Microbiology and hygiene			4 2 6 6 5				
Pathology			4 1 7 5 0				
Pharmacology			4 0 2 4 0				
Nursing education			4 1 8 5 0				
Child studies			9 2 1 0 0				
Child and youth studies			9 2 0 7 0				
Music			1 0 5 0 0	Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. p.p.w	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. p.p.w

INSTRUCTIONS

Chap- 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

The Government Ordinance of 25th January 1979 provides that awards for nurse care practice are to be indicated by the terms Passed and Failed, as the case may be.

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is to be made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Nursing and Care Line:

63150-0105 Health and Medical Services and Geriatrics Branch
63303-0100 Psychiatric Care Branch
63303-0119 Care of Mentally Retarded Adults variant
63410-0103 Child and Youth Welfare Branch
63411-0012 Child Nursing variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling

Municipality

Date

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Nursing and Care Line, Child and Welfare Branch

Course of studies (complete, reduced or augmented)

Study route code

6 | 3 | 4 | 1 | 0 | 0 | 1 | 0 | 3 |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Child care practice			9 2 0 9 0
Swedish language			6 5 6 0 S				
Literature and general languages			6 5 6 0 L				
Working life orientation			5 0 1 1 0	Compulsory option:			
Physical education			9 0 2 0 0				
Psychology			0 5 5 0 0				
Social medicine			4 2 8 6 0	Free option:			
Family affairs			5 5 1 7 0				
Anatomy and physiology			4 2 0 5 0				
Microbiology and hygiene			4 2 6 6 5				
Pathology			4 1 7 5 0				
Nursing education			4 1 8 5 0				
Child studies			9 2 1 0 0				
Child and youth studies			9 2 0 7 0	Participated (voluntary subject):			
Music			1 0 5 0 0				

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

The Government Ordinance of 25th January 1979 provides that awards for child care practice are to be indicated by the terms Passed and Failed, as the case may be.

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation, microbiology and hygiene**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required.

A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Two-year Operation and Maintenance Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Energy Technology Branch	Marine Engineering Branch	Electrical Power Branch
Grade 1	Common course		

Description

This line of studies is both theoretical and practical. The subjects dealing with operating techniques are fifty per cent theoretically descriptive, the other fifty per cent comprising experiments and practical exercises in operating and maintenance techniques.

Instruction during the first year is the same for all students. The purpose of this line of studies is to acquaint all students with the trades and duties represented by the three branches in grade 2.

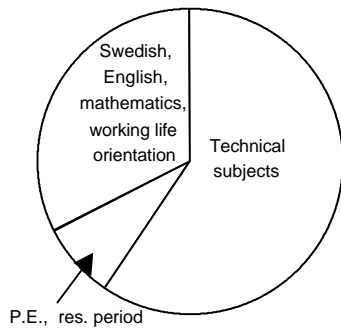
Prior to grade 2 the students choose branches and specialities. Studies during grade 2 itself focus on the sectors presented in the structural chart above.

A student taking all the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocated for technical subjects is increased by 1 ppw in grade 2; see time schedule. P.E. = Physical education
Res. period = Reserve period

One of the purposes of the instruction given in grade 1 is to provide all students with a basic knowledge of operating and maintenance tasks involved by power and heating installations, property facilities, water and sewage purification facilities, and marine engineering. School workshop practice includes, among other things, training in bench and tube work, brazing, bricklaying and electrical work, together with an introduction to the properties and uses of tools and machine tools.

Instruction in the technical subjects centres to a great extent round experimental exercises concerning the operation and maintenance of energy production equipment, marine equipment and electrical engineering plant.

Energy Technology Branch, grade 2

The purpose of instruction in this branch is to provide the students with knowledge concerning the operation of energy production and process engineering systems, both in economic terms and from the viewpoint of safety. Students are enabled to study the structure and principles of working systems and the interaction of their various parts.

This instruction also includes calculations, sampling and analyses, together with running tests and monitoring of energy production and process engineering systems and installations.

Studies in this branch focus on three specialities. Each student has to take one of the following:
power and heating technology speciality, property maintenance speciality, water and sewerage speciality.

The speciality thus chosen enables the students to spend 6 ppw during grade 2 on in-depth studies and practice of operation and maintenance etc. within one of the above fields.

Marine Engineering Branch, grade 2

The purpose of this branch is to provide students with a knowledge of equipment, operation and maintenance on board ship, together with a basic knowledge of fishing, navigation and seamanship. Instruction includes studies of the construction of ships, cargo handling and seamanship, as well as machinery on board ship.

The instruction also includes calculations, sampling and analyses, operational testing and monitoring of machinery and installations and a certain amount of practice in connection with the navigation and manouvering of ships.

This branch focusses on three specialities. Each student has to take one of the following:

deck technology speciality,
mechanical engineering speciality,
fishing technology speciality.

The speciality thus chosen enables the students to spend 6 ~ during grade 2 on in-depth studies and practice of operation and maintenance etc. within one of the above fields.

Electrical Power Branch, grade 2

The purpose of this branch is to equip students with a knowledge of electrical equipment and control devices for control, regulation and the supervision of operations. Studies are made of the structure and design of electrical systems and control systems.

The instruction includes repairs, maintenance and monitoring of such devices as winches, cranes and control components, together with trouble shooting and maintenance in electrical systems and control systems.

This branch focusses on marine electronics. This specialization enables the students to spend 6 ppw during grade 2 on in-depth studies of the problems of operation and maintenance associated with electronic equipment, control equipment and regulating equipment on board ship and with navigation aids.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for working life orientation, however. Instead a note is made to the effect that the student has "Participated". Marks are awarded on a five-point scale, 5 being the maximum award and 3 the average award for the course of studies in a particular subject.

In certain cases a cross can be entered to show that, although the subject has been included in the course of studies, the student has not been awarded a mark for it.

This may be because the student, owing to prolonged absence, neglect or handicap, has failed to achieve sufficient knowledge and proficiency in the subject.

Time schedule

Subject	Total no. lessons in	
	Grade 1	Grade 2
Swedish	160	120
English	120	120
Mathematics	120	120
Working life orientation	40	40
Physical education	80	80
Reserve period ¹	40	40
Technical subjects (see below)	920	960

Subject	Total no. lesson in			
	Grade 1 ²	En Branch	Grade 2 Ft Branch	Ed Branch
School workshop practice ³	240			
Electrical engineering and automatic control	280	200	200	
Mechanical engineering Du	400	520		
Marine engineering			520	
Electrical power				720
Vocational studies		240 ⁴	240 ⁵	240 ⁶

¹ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

² A reapportionment of up to 4 ppw may be effected between grades in mechanical engineering Du and marina engineering in localities having a Marina Engineering Branch.

³ School workshop practice comprises instruction in certain aspects of workshop techniques, building and construction techniques and electrotelecommunications engineering.

⁴ With a certain amount of specialization in power and heating technology, water and sewerage technology, property services or hydropower technology

⁵ With a certain amount of specialization in fishing, deck or engine room duties.

⁶ With a certain amount of specialization in marina electrical equipment.

En = energy technology

Ft = marina engineering

Ed = electrical power production

• The times given in the time schedule refer to the total number of lessons estimated for 40 working weeks per grade.

NOTE. Owing to losses of time in the form of public holidays, days off etc., the number of lessons will be about 10-15 per cent less than indicated.

After studies

The purpose of this line of studies is to convey the basic knowledge and skills required for employment in power and heating production plants, property facilities, water and sewage purification plants and marine engineering. Duties vary and can comprise the inspection, supervision and maintenance of apparatus, machinery and systems in both marine and on-shore facilities.

Completion of this line of studies generally has to be followed by the acquisition of a number of years' job experience before full vocational competence can be achieved.

The Energy Technology Branch prepares students for employment relating to both the economic and safety aspects of the running and maintenance of energy production and process engineering systems.

Among other things this branch prepares students for employment in combined heating and power plants, thermal power plants, district heating plants, hydropower plants, the pulp industry, waterworks, sewage purification plants, property facilities and the maintenance and operation of central power plants etc. at hospitals and in various branches of processing industry.

The basic course of studies in the Marine Engineering Branch serves primarily to prepare students for deck and engine room service on board ships of various kinds.

The Electrical Power Branch serves primarily to prepare students for work on board ship. Students can qualify as installation electricians after completing the prescribed period of vocational practice.

Students completing the Operation and Maintenance line can go on to obtain further qualifications for employment at sea or ashore. Among other things this line confers general eligibility for postsecondary studies.

There exists at present a two-year course of training for plant technicians within the technical sector of postsecondary education. Plant technicians can then go on to qualify as plant engineers at post-secondary level.

The Operation and Maintenance Line confers the special eligibility which is required, in addition to a certain amount of vocational practice, for admission to post-secondary ship's officer training courses for mates, masters, assistant ship's engineers and marine engineers.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Operation and Maintenance Line

Branch, vocational speciality	
Course of studies (complete, reduced or augmented)	Study route code

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				School workshop practice			
Swedish language			6 5 6 0 S	Electrical engineering and automatic control			8 8 6 6 0
Literature and general languages			6 5 6 0 L	Mechanical engineering Du			8 8 1 6 0
English				Marine Engineering			7 5 5 6 0
General course			6 0 3 0 A	Electrical power production			7 9 1 8 0
Special course			6 0 3 0 S	Vocational speciality			7 2 1 6 0
Mathematics			3 5 5 0 0	Participated (voluntary subject)			8 8 9 5 0
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Operation and Maintenance Line:

43555-0100 Energy Technology Branch

43554-0103 Electrical Power Branch

53150-0107 Marine Engineering Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Social Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Please note. Twenty-five per cent of all places in this line are reserved for applicants having *either good testimonials* for at least three years' job experience in an occupation relevant to these studies *or else* a leaving certificate of two years' fulltime upper secondary school or vocational school studies in a suitable field.

Structure of studies

Grade 2	Common course
Grade 1	

Description

The purpose of this line is to give students the general knowledge which can provide a foundation for both vocational activity and further education.

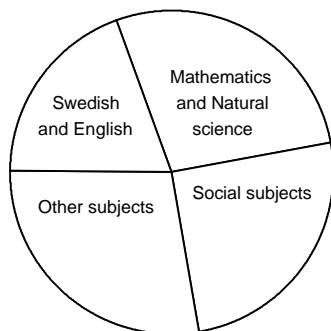
A compulsory option (see time schedule) provides the student with an opportunity of widening the range of his studies according to personal preference.

A student taking the instruction and activities compulsory for this line thereby takes a complete course of *studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects

The pie chart shows the time allocations for different subjects in the two grades. A great deal of time is devoted to social subjects, mathematics and natural science. Efforts are made to integrate the various subjects.

Social subjects = history, religious knowledge, civics, sociology.

Other subjects = typing and office skills, music/drawing, physical education, reserve period, optional subject.

The characteristic subjects of this line are

natural science

sociology

civics, history and mathematics.

Natural science comprises physics, chemistry, biology and geo-science. Among other things the students learn to observe phenomena and processes in the natural environment, with particular reference to their importance to the individual and society. Questions of environmental conservation are also covered in the course of studies. The students take part in laboratory exercises and carefully analyse their experiments. Excursions of various kinds are an important part of work procedure in the sections dealing with ecology and natural geography.

The teaching of sociology in grade 2 follows on from the knowledge of society which the students have previously acquired through their studies of civics.

The purpose of this instruction is to familiarize the students with the situation of the individual and the family in a changing society, with questions concerning interpersonal relations and with various social issues and problems and methods of dealing with them. The students are introduced to the social policy pursued by the community. Instruction focusses on knowledge and skills which can be useful to the students in their future vocational activity. Work procedures include field trips, group work and practical assignments of various kinds.

In grade 1 the students are given a grounding in *typing and office skills*. This subject includes an introduction to basic office routines, the organization of office work, job allocation, forms and form technique, the use of different types of office machinery and the other aids occurring in a modern office. The students are also taught typing and machine calculation.

Great importance is also attached to developing the students' communicative skills, for example in languages - English being taken by all students - and in mathematics. Students can also take a second foreign language in the form of an optional subject; see time schedule. Language teaching is aimed at developing the students' ability to understand the spoken and written language and their practical command of the language. In mathematics the students are introduced to a number of elementary concepts in the theory of probability and statistics, they practise using the slide rule and calculating machines, and they are introduced to the applications of mathematics in various fields of activity.

Marks

Marks are awarded for all subjects on a five-point scale, 5 being the maximum award.

Time schedule

Subject	No. ppw	
	grade 1	Grade 2
Swedish	4	3
English, general or special course	3	3
History	3	2
Religious knowledge	-	2
Civics	3	3
Sociology	-	5
Mathematics	3	3
Natural science	6	6
Typing and office skills	4	-
Music or drawing	2	2
Physical education	3	2
Reserve period ¹	1	1
Optional subjects		
B- or C-language		
Music, aesthetic speciality	3	3
Drawing, aesthetic speciality		
Handicraft		
Drama		
Psychology (grade 1 only)		
Consumer education (grade 2 only)		

¹ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions,

² One of these optional subjects is taken for 3 ppw.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: Duration of school year = 40 weeks (with some deduction for *public holidays*, days off etc.).

1 period per week (~) = 40 minutes per week.

After studies

The Social Line serves above all to lay a foundation for further education focussing, for example, on social work, nursing and care, the teaching profession and other occupations concerned with personal contacts and social services. It can also be followed by certain courses of in-

house training in enterprise or administration.

Students completing this line can apply, for example, for the advanced specialized Social Administration course.

This line confers general eligibility for post-secondary studies.

Name of school:

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality:

Date:

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr. mth. date, identity digits)

Two-year Social Line

Variant

Course of studies (complete, reduced or augmented)

Study route code

0 3 0 0 9 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S	B, General course			
Literature and general languages			6 5 6 0 L	B, Special course			
English				C			
General course			6 0 3 0 A				
Special course			6 0 3 0 S	Psychology			0 5 5 0 0
Civics			5 4 8 0 0	Consumer education			9 1 4 2 0
Mathematics			3 5 5 0 0	Handicraft			1 2 7 0 0
Physical education			9 0 2 0 0	Drama			1 1 1 0 0
History			0 2 8 0 0	Music, aesthetic speciality			1 0 5 4 0
Religious knowledge			0 6 7 0 0	Drawing, aesthetic speciality			1 3 8 2 0
Sociology			5 5 7 4 0				
General science			3 8 4 5 0				
Typing and office skills			2 1 5 2 0				
Music			1 0 5 0 0				
Drawing			1 3 8 0 0	Participated (voluntary subject)			

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Social Line:

03009-0008 Social Line, no variant
03009-0017 Aesthetic variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required.
A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
 - 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
 - 8 = augmented course of studies.
 - 9 = reduced course of studies.
- Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Two-year Processing Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 3	Chemical Engineering Branch	Paper and Pulp Branch	Metallurgy Branch	Building Materials Branch
Grade 1	Common course			

Description

Instruction in the first year is the same for all students, its purpose being to acquaint all students with the occupations and duties represented by the four branches in grade 2.

A compulsory option (see time schedule) makes it possible for the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

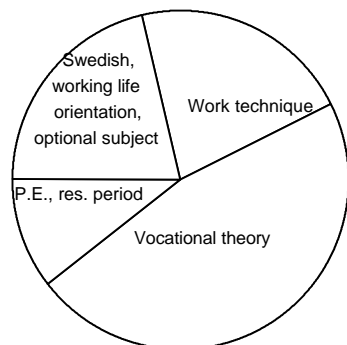
A student taking the instruction and activities compulsory for this line and the branch

opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, processing techniques, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education
Res. period = Reserve period.

The characteristic subject of this line is

processing techniques

which comprises work technique and vocational theory as indicated in the time schedule.

The first year's instruction is designed among other things to give all students a basic knowledge of raw materials, semi-manufactured and finished products in processing industry and of the working and uses of motors, apparatus and other production equipment and plant. Among other things the students receive basic instruction in bench and tube work, brazing, maintenance work, sampling, material control and trouble shooting, energy production and automatic controls and control engineering.

Instruction in work technique is based partly on the school and partly on processing enterprises. During their instruction in enterprise, the students circulate between different departments or work points in order to get to know the processing apparatus, process-controlled installations and work cycles and to acquaint themselves with the structure and operation of processing industry.

Chemical Engineering Branch in grade 2

Instruction in this branch is designed to equip the students with a knowledge of the principles of design, modes of operation, applications and names of production equipment in chemical industry, and also to acquaint them with various raw materials which are processed and upgraded in processing industry. In order to give the students as comprehensive a view as possible of different tasks, the study of working processes (see time schedule) is based on chemical and/or chemical engineering enterprises where among other things the students are able to study processing apparatus and various working processes.

Paper and Pulp Branch in grade 2

Instruction in this branch is designed to give the students a knowledge of different raw materials in the paper and pulp industry, the

uses to which they are applied, the chemical and physical processes involved by the various production methods, the principles of design and modes of operation of the machinery and other equipment used, and the practical conduct of calculations, sampling and analyses.

Here as in the other branches, working processes are studied at workplaces outside school, in paper and pulp manufacturing plants where among other things the students are enabled to study processing and production equipment together with various working processes.

Metallurgy Branch in grade 2

Students taking this branch devote most of their time to instruction in work technique, which is provided on an inplant basis at steelworks, mostly in metallurgical departments, in sintering plants, furnaces, steel mills and alloying plants.

The purpose of this instruction is to equip the students with a knowledge of the processing apparatus used and the monitoring of instruments and apparatus, to familiarize them with various working processes and to teach them jobs connected with the production, fabrication and treatment of iron, steel and certain other metals.

Building Materials Branch in grade 2

Here as in the Metallurgy Branch, the greater part of the students' time is devoted to instruction in work technique. This instruction takes place in external enterprises, e.g. in plants producing lime, cement, concrete, fabricated concrete, fibrous cement, porous concrete, ceramics or insulating materials.

The purpose of this instruction is to familiarize the students with the production, fabrication and treatment of the various building materials and to teach them the use and care of the technical equipment employed.

At the time of writing (January 1979) this branch had not been established in any locality.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	Total no. lessons in				
	Grade 1	Grade 2			
		Ke	Pp	Me	Bg
Swedish	160	-	-	-	-
Working life orientation	40	40	40	40	40
Processing techniques ¹					
Work technique	360 ²	600 ²	440 ²	960 ²	800 ²
Vocational theory	720	680	840	320	480
Physical education	80	80	80	80	80
Reserve period ³	40	-	-	-	-
Optional subject					
English	120	120	120	120	120
B- or C-language					
Religious knowledge					
Psychology					
Civics					
Consumer education					
Mathematics					
Music or drawing					

Ke = Chemical Engineering Branch
Pp = Paper and Pulp Branch
Me = Metallurgy Branch
Bg = Building Materials Branch

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.
Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

¹ Processing techniques includes the following
Erection
Trouble-shooting, maintenance, operation monitoring and material control
The production process
Automatic control and control engineering
Energy
Production engineering
Working process (instruction at external enterprises)

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work technique during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

Note: The time allocations given in the time schedule refer to the *total number of lessons* for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of these studies is to convey the basic knowledge and skills required for employment in those parts of processing industry represented by the various branches of the Processing Line.

Studies in the *Chemical Engineering Branch* prepare students for employment, for example, in such branches of chemical industry as fertilizer plants, plastic and electro-chemical plants, oil refineries, gas-works and sulphuric acid plants or in home care industries such as the soap and detergent industry, the match industry, cosmetics manufacturing, paint factories and pharmaceutical plants.

The *Paper and Pulp Branch* prepares students primarily for employment in pulp and paper mills, but this training can also provide a foundation for employment in sawmills, plywood and board mills and textile manufacturing, for example.

The *Metallurgy Branch* prepares students for employment in steelmaking and other metal industries. After a few years' job experience, the students will have acquired a training which can lead to employment as blast furnacement, melters or blowers.

Students can also apply for one of the departments in which steel is upgraded to semimanufactured or finished products.

Immediately on leaving school, students can also apply for industrial laboratories in the sectors referred to above or for employment in independent research laboratories.

These studies can also provide a foundation for further education in the field of processing technology.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Processing Line

Branch

Course of studies (complete, reduced or sugmented)

Study route code

4 | 3 | 4 | 4 | 0 | | | | |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				
Processing techniques			7 8 6 6 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Sub(ject)s partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for working life orientation. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B= B-language, the second foreign language taken by the student at compulsory school or its equivalent

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Processing Line:

43441-0103 Chemical Engineering Branch
43448-0108 Food Processing Branch
43443-0109 Paper and Pulp Branch
43442-0101 Metallurgy Branch
43445-0104 Building Materials Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required.

A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Technology Line

Admission Requirements

Leaving certificate from grade 9 of compulsory school (including *special mathematics course*), or equivalent.

Please note. Twenty-five per cent of all places in this line are reserved for applicants having *either* good testimonials for at least three years' job experience in an occupation relevant to these studies *or else* a leaving certificate of two years' fulltime upper secondary school or vocational school studies in a suitable field.

Job experience

For admission to grade 2, students must have acquired at least 9 months' job experience relating to the branch of preference. This job experience can be completed before or after grade 1.

Structure of studies

Grade 2	Mechanical Engineering Branch	Building Branch	Electro- power variant	Telecommuni- cations variant	Chemical Engineering Branch
Grade 1			Electro-Engineering Branch		

Description

This line is already divided into four branches in grade 1. In grade 2 the Electro-engineering branch is further divided into Electro-power and Telecommunications variants. Many subjects, however, are the same for all students, and the main differences between the branches are concerned with the technical subjects; see time schedule.

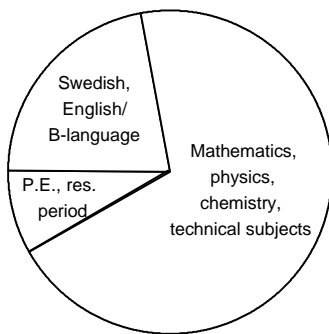
This line provides basic technical education and specialized knowledge within the trade corresponding to the branch taken. In addition to specialized technical instruction, the line includes studies of general subjects.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for technical subjects is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education.
Res. period = Reserve period.

The main emphasis of instruction in this line is on the specialized

technical subjects

included in the time schedule for the various branches (see time schedule) and for mathematics and physics.

Studies also include a number of general subjects, Swedish, foreign languages, civics etc.

The teaching of ergonomics covers, for example, the technical working environment, work supervision, occupational safety and health, and health care. This subject also includes an introduction to the factors influencing the interaction of man and his working environment.

The content of the various branches is briefly described in the following summary. Reference is also made to the various time schedule.

Mechanical Engineering Branch (Ma)

Instruction in *technology Ma* lays the foundations of engineering working methods. Subject matter includes science of materials, mechanics, strength of materials, structural elements and drawing technique, and the students are also familiarized with the construction of apparatus and machinery.

Production Ma, which is taught in both grades, includes materials science and manufacturing and production technology. This subject gives the students a knowledge of the fabrication and treatment of different materials and of different factors of production technique and methods of planning. Practice in the methodical selection and treatment of data for different manufacturing methods form an important part of instruction in this subject.

Design Ma is one of the main subjects in grade 2. Most of this subject is concerned with practice in the design of ordinary tools, machinery and apparatus. The students learn to take into consideration both practical requirements and economic factors.

Energy provides an introduction to various energy processes. Instruction in this subject deals, for example, with pumps, fans and water turbines, heating and ventilation technology, internal combustion engines, steam installations, compressors and refrigeration plants.

Electrical engineering Ma includes electricity and electronics, electrotechnical measuring techniques, electrical machinery and electrical power supply and uses of electrical power.

Building Branch (By)

In this branch great importance is attached to building technology, design By and production By.

Building technology serves among other things to familiarize the students with building materials and housebuilding technology and to give them a command of draughtsmanship. Levelling and setting out are important items in this subject. The concrete content of instruction is enhanced by means of field trips to building sites.

Design By includes studies of geology and soil mechanics, strength of materials and measurement techniques in building.

Production By includes instruction concerning the whole of the production process, from the preparatory stage of siting, finance, negotiations with authorities etc. to the final stages of inspection etc. Among other things the students are familiarized with building machinery, production planning and production techniques.

House building in grade 2 can be termed a continuation of building technology as taught in grade 1, though it is mainly concerned with large buildings.

Construction is designed to familiarize the students with such matters as civil engineering, sewerage, energy supply and environment conservation.

Special project By provides the student with an opportunity of making in-depth studies of housing construction or heavy construction. The student himself chooses and carries out assignments which can occur in his future engineering activities. A student choosing housing construction, for example, may choose to make an indepth study of design, building technique, community planning, production etc., while a student choosing heavy construction may choose, for example, between roadbuilding, water supply and sewerage technology.

Electro-engineering Branch (El)

Instruction in *technology El* lays the foundations of engineering working methods. The subject matter includes materials science, mechanics, strength of materials, structural elements and draughtsmanship, and students are familiarized with the construction of apparatus and machinery. Studies in electricity include, for example, the laws and measuring techniques of electro-technology and the use of the main measuring instruments.

This branch divides into two variants in grade 2, namely an Electro-power and a

Telecommunications variant; see time schedule.

The main subjects in the *Electro-power variant* are electrical machinery, electrical construction and electronics. Electronics is treated more superficially in this branch. *Electrical machinery* deals with the construction, principles, operational properties and uses of electrical machinery. Studies in *electrical installation* include, for example, the production, transmission and distribution of electrical power. A student taking this variant can obtain theoretical qualifications for general eligibility as an installation electrician.

The main subjects of the *Telecommunications variant* are electronics, telecommunications and electrical power.

Electronics deals with electronic components and circuits, amplifiers and digital and control techniques. Laboratory experiments occupy a prominent position on the timetable.

Telecommunications deals among other things with signals, circuits, electromagnetic waves and radio and television technology. This instruction is mainly of a practical and technical nature.

In *electrical power* the students are introduced, for example, to electrical machinery, electrical power supply and the uses of electrical power.

Chemical Engineering Branch (Ko)

This branch is very much concerned with experimentation and analysis and with the mathematical treatment of various problems.

Instruction in *technology Ke* lays the foundations of engineering working methods. The subject matter includes materials science, mechanics, strength of materials, structural elements and draughtsmanship, and the students are familiarized with the construction of machinery and apparatus.

Physical chemistry and analysis increases the students' knowledge of general and physical chemistry familiarizes them with principles and methods for determining substances in different materials and provides them with practice in laboratory techniques. *Chemical engineering* deals among other things with fluid mechanics, heat technology and chemical engineering processes.

Time schedule

Subject	No. ppw in				
	Grade 1		Grade 2		
	Ma, By and El	Ke	Ma and Ke	By	Kr and Tt
Swedish	4	4			
English or B-language ¹ (general or special course)	3	3			
Religious knowledge			2	2	2
Civics			2	2	2
Mathematics	6	6	2	2	4
Physics	4	4	3	3	3
Chemistry	2	8			
Business economics			2		2
Ergonomics			2	2	2
Physical education	3	3	1	1	1
Reserve period ²	1	1	1	1	1
Technical subjects (see below)	12	6	20	22	18

Ma = Mechanical Engineering Branch
By = Building Branch
Ke = Chemical Engineering Branch
El = Electro-engineering Branch
Kr = Electro-power variant
Tt = Telecommunications variant

¹ B-language = German or French when taken by the student at compulsory school.

² Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.
Note: Duration of school year = 40 weeks (with some deduction for public holidays, days off etc.).

1 period per week (ppw) = 40 minutes per week.

Mechanical Engineering Branch

Technical subjects	No. ppw in grade	
	1	2
Technology Ma	9	-
Design Ma	-	6
Energy	-	4
Production Ma	3	7
Electrical engineering Ma	-	3

Building Branch

Technical subjects	No. ppw in grade	
	1	2
Building technology	6	-
Design By	6	-
Production By	-	8
Housing construction	-	5
Heavy construction	-	5
Special project By	-	4

Electro-engineering Branch

Technical subjects	No. ppw in grade		
	1	2	
		Kr	Tt
Technology EI	6	-	-
Electricity	6	-	-
Electronics	-	5	7
Telecommunications	-	-	6
Electrical machinery	-	5	-
Electrical construction	-	8	-
Electrical power	-	-	5

Chemical Engineering Branch

Technical subjects	No. ppw in grade	
	1	2
Technology Ke	4	-
Physical chemistry and analyze	-	8
Organic chemistry	-	3
Biochemistry	2	3
Chemical engineering	-	6

Marks

Marks are awarded for all subjects except where otherwise indicated. Awards are made on a five-point scale, the maximum award being 5.

After studies

In addition to instruction in general subjects, this line provides a basic technical education and specialized knowledge of the technical field corresponding to the branch chosen by the individual student. The aim is for the student to be able, immediately on completing these studies, to apply for employment or to go on to further technical education or studies of other kinds.

In their first job after completing this line, it is to be expected that students will be given relatively simple duties, since their initial employment, in spite of the nine months' job experience between grades 1 and 2, can be regarded as part of their practical training.

After some years' vocational activity, students should be able to cope with the duties of supervisory staff, designers, draughtsmen, production engineers etc. This line can also lead to employment as sales or purchasing staff, mainly in fields requiring technical qualifications-

The two-year Technology Line does not only prepare students for purely technical duties. It also provides a broad technical education which can be useful in many other spheres of employment, e.g. police work, customs administration, farming and forestry, transport and medicine.

The Mechanical Engineering Branch provides basic training for employment on calculating, design and draughtsmanship, for example, in the design department of a company. Method and working studies in a production department are also conceivable duties.

The Building Branch provides a basic education which is suitable for future

employment in the building sector, e.g. draughtsmanship and basic design duties in the design office of a building or construction company and investigating and calculating work. This instruction also prepares students for supervisory duties in building enterprises.

The Electro-engineering Branch provides basic training with a certain choice of specialities between electrical power technology and telecommunications. After induction training, the student should be capable of discharging duties within the speciality chosen. Other fields of employment which may be appropriate are, for example, in laboratories, drawing offices, site offices or service shops. The Electro-power variant can confer theoretical qualifications for general eligibility as an installation electrician.

The Chemical Engineering Branch provides basic training for future activities in laboratories of various kinds and elsewhere. Conceivable duties include analyses and the examination of preparations by means of measurements of different kinds. Students taking this branch may also be employed in assistant capacities in industrial research. The two-year Technology Line also confers eligibility for the following advanced specialized courses.

Business economics for sales engineer training.

- Business economics for engineers
- training as buyers.
- Social administration course.

Name of school:

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Technology Line, Mechanical Engineering Branch

Course of studies (complete, reduced or augmented)

Study route code

4 | 3 | 7 | 0 | 0 | 0 | 1 | 0 | 2 |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Technology			8 8 7 5 0
English General course			6 0 3 0 A	Design			7 5 3 5 0
Special course			6 0 3 0 S	Energy			7 3 1 8 0
.....B, General course				Production			7 8 6 8 0
.....B, Special course				Electrical engineering			7 2 3 0 0
Religious knowledge			0 6 7 0 0				
Civics			5 4 8 0 0				
Mathematics			3 5 5 0 0				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Ergonomics			5 0 3 6 0				
Physical education ..			9 0 2 0 0				
Business economics			2 0 2 4 0	Participated (voluntary subjects)			

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235) "Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first live digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

Name of school

LEAVING CERTIFICATE awarded on completion of upper
secondary schooling ☐


Municipality



















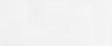

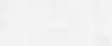
Date

 awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Technology Line, Building Branch

Course of studies (complete, reduced or augmented)	Study route code
	4 3 7 3 0  0 1 0 9

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Building techniques			7 0 3 0 0
English			6 0 3 0 A	Design			7 0 6 0 0
General course			6 0 3 0 S	Production			7 0 7 2 0
Special course				Housing construction			7 0 5 0 0
..... B, General				Construction			7 0 0 2 0
course				Special project			8 5 6 7 0
..... B, Special							
course							
Religious knowledge			0 5 7 0 0				
Civics			5 4 5 0 0				
Mathematics			3 5 5 0 0				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Ergonomics			5 0 3 6 0				
Physical education			9 0 2 0 0	Participated (voluntary subject):			

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made. augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first live digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

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Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digits)
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Two-year Technology Line, Electro-Engineering Branch

Course of studies (complete, reduced or augmented)	Study route code
	4 3 7 1 0 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Technology			8 8 7 5 0
English General course			6 0 3 0 A	Electricity			7 2 2 8 0
Special course			6 0 3 0 S	Electronics			7 2 2 4 0
..... B, General course				Telecommunications			7 2 7 3 0
..... B, Special course				Electrical machinery			7 2 2 9 0
Religious knowledge			0 6 7 0 0	Electrical installation			7 2 1 3 0
Civics			5 4 8 0 0	Electrical power			7 2 2 6 0
Mathematics			3 5 5 0 0				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Ergonomics			5 0 3 6 0				
Physical education			9 0 2 0 0				
Business economics			2 0 2 4 0	Participated (voluntary subject):			

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

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If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the Electro-Engineering Branch of the two-year Technology Line:

43710-0110 Electro-Power variant
43710-0129 Telecommunications variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

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6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Two-year Technology Line, Chemical Engineering Branch

Course of studies (complete, reduced or augmented)

Study route code

4 3 7 5 0 0 1 0 7

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Technology			8 8 7 5 0
English				Physical chemistry			
General course			6 0 3 0 A	and analysis			3 4 2 5 0
Special course			6 0 3 0 S	Organic chemistry ..			3 4 6 0 0
..... B, General				Biochemistry			3 4 0 8 0
course				Chemical engineering			7 4 4 0 0
..... B, Special							
course							
Religious knowledge			0 6 7 0 0				
Civics			5 4 8 0 0				
Mathematics			3 5 5 0 0				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Ergonomics			5 0 3 6 0				
Physical education			9 0 2 0 0				
Business economics			2 0 2 4 0	Participated (voluntary subject):			

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

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Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

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Chap. 8, Section 5, the Education Ordinance (SFS 1971:236)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

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Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

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- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first live digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Woodwork Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Joiners Branch	Patterns Makers Branch	Boatbuilders Branch
Grade 1	Common course		

Description

Instruction during the first year is the same for all students, its purpose being to acquaint the students with the occupations represented by the three branches in grade 2.

Prior to grade 2 the student chooses a branch of studies focussing on the areas enumerated in the structural chart above.

A compulsory option (see time schedule) enables the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

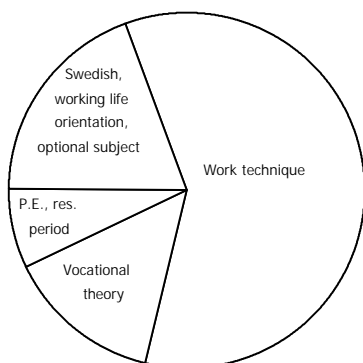
A student taking the instruction and ac-

tivities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, *woodwork techniques*, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = physical education
res. period = reserve period

The characteristic subject of this line is

woodwork techniques

which comprises work technique and vocational theory according to the time schedule.

In *woodwork techniques* the students study the construction and working of wood conversion machinery, and they learn to operate about twenty-five different types of machines. They are familiarized with the commonest types of wood and their uses.

Using various mechanical aids, the students produce simple furniture, both solid and veneered, as well as interior decorations and joinery products. In this work, great importance is attached to achieving accurate dimensions and surfaces. The students also learn to read and interpret drawings, tables and instructions, and they produce drawings and sketches of their own.

In the practical part of their instruction, the students are given assignments to perform in various groups, one purpose being to train them in the team work which occurs at a workplace. They try their hand at being 'safety delegates' and taking charge of tools, machinery, facilities etc., and they also have to implement various safety and security regulations.

Joiners Branch in grade 2

Students taking this branch pursue further studies in the use of sawing and planing machines, milling machines, drilling machines

and polishing machines, and they also team more about the care and maintenance of the various types of machinery. In addition to machine work, the students learn about the construction and assembly of furniture and standard joinery articles. For example, they produce Windows, doors and kitchen fittings, and they study timber drying and the assembly and surface treatment of furniture.

Pattern Makers Branch in grade 2

In this branch students learn to make various foundry moulds of wood and plastic. Tasks include the production of blue-prints and scale drawings modelling work, and the students also construct models.

In addition, the students produce shuttering and foundry articles.

Boatbuilders Branch in grade 2

Students taking this branch learn to build and repair small craft, and their practical training includes the construction of clinker-built boats. The students also learn about the functions of scale drawings, they produce documentation for the manufacture of various boat parts, they produce hull designs, they carry out erection, outside planking and fitting, and in the course of this work they try out various production methods. Further, the students are taught various methods of surface treatment and timber drying.

Instruction concerning boat repairs is usually provided with the aid of external assignments, one of which will include repairs to plastic craft.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	Total no. lessons in	
	Grade 1	Grade 2 Branches Vs, Mo, Bb
Swedish	160	-
Working life orientation	40	40
Woodwork techniques ¹		
Work technique	840 ²	1 040 ²
Vocational theory	80	240
Physical education	40	80
Reserve period ³		-
Optional subject		
English	120	120
B- or C-language		
Religious knowledge		
Psychology		
Civics		
Consumer education		
Mathematics		
Music or drawing		

Vs = Joiners Branch
 Mo = Pattern Makers Branch
 Bb = Boatbuilders Branch

¹ Woodwork techniques includes the following:

GRADE 1

General machinery
 Basic science of materials
 Drawings
 Machine work
 Glueing and veneering
 Assembly
 Surface finishing
 Care of machinery and tools
 Design and planning

GRADE 2

The main emphasis of work in grade 2 is on the following subject items in the various branches:

Vs - Joiners Branch
 Machine work
 Assembly
 Machinery and tools

Mo - Pattern Makers Branch
 Foundry models and shuttering
 Assembly

Bb - Boatbuilders Branch
 Boatbuilding
 Boat repairs
 Assembly
 Machine work

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studies by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions,

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work technique during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the total *number* of lessons for 40 working weeks per grade.

Further remarks. The net number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this line is to confer the basic knowledge and skills required for employment in the wood conversion sector. Above all this instruction prepares students for employment in joinery factories producing building joinery and interior fittings, the wooden furniture industry or factories producing prefabricated timber buildings. These studies can also provide a foundation for employment in a number of other industrial enterprises manufacturing toys, boats, skis and musical instruments, for example, and in institutions and branches of enterprise and administration maintaining their own personnel for various types of maintenance and supplementary

construction work.

The *Pattern Makers Branch* prepares students for employment in foundry and other pattern shops.

Students completing the *Joiners Branch* can, for example, apply for an advanced specialized course in furniture making and interior fittings. Studies in this line also confer eligibility for further education in the wood conversion sector.

Students completing the Joiners Branch, for example, can apply for an advanced specialized course of cabinet making and joinery.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digit)
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Two-year Woodwork Line

Branch	Course of studies (complete, reduced or augmented)	Study route code
		4 3 4 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				
Woodwork techniques			7 8 8 7 0				
Compulsory option:							
				Participated (voluntary subject):			

Vocational subjects have been exchanged (free option) in grade 2 as follows

Subject(s) partially or entirely deleted	No. ppw	Subject(s) (sub-items) in free option, line, branch, variant, grade	No. ppw

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey.¹¹

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working life orientation**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Wood-work Line:

43422-0103 Joiners Branch
43424-0109 Pattern-makers Branch
43425-0106 Boatbuilders Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required.
A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.
Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Two-year Workshop Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (or equivalent).

Structure of studies

Grade 2	Workshop Mechanics Branch	Metal Workers and Welders Branch	Heavy Plate Variant	Steelmill Trades Branch
Grade 1	Common course			

Description

Instruction during the first year is the same for all students, its purpose being to acquaint all students with the occupations represented by the three branches in grade 2.

Prior to grade 2 each student opts for a particular branch as indicated above.

A compulsory option (see time schedule) enables the student to choose, according to personal preference, a theoretical subject to be taken for at least one school year.

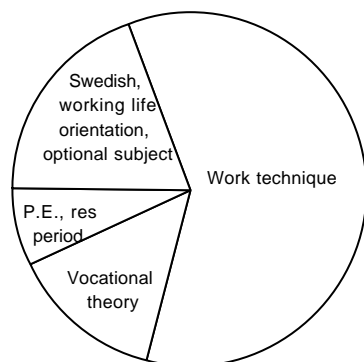
A student taking the instruction and ac-

tivities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, workshop techniques, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education.
Res. period = Reserve period.

The characteristic subject of this line is

workshop techniques

which comprises work technique and vocational theory as indicated in the time schedule.

In their studies of workshop techniques the students learn, for example, to use, maintain and care for various tools and machines, and they also study the properties and uses of different materials. Thus they learn the construction, names and uses of the tools for bench and machine work. They perform elementary grinding, turning, milling, plate work, brazing and welding operations, and in this connection they learn the use of various measuring instruments and study different methods of measurement.

In the practical part of their instruction the students form various groups to deal with assignments aimed among other things at giving them practice in the team work which occurs at a workplace. They are enabled to try their hand at being 'safety delegates', taking charge of tools, machinery, facilities and so forth.

Workshop Mechanics Branch in grade 2

This branch gives students an opportunity of deepening and broadening their knowledge of different tools and machines used for turning, milling, grinding, drilling and other operations. They also receive instruction in bench work, assembly work, quality assurance and measuring techniques.

Some of this work can be devoted to external orders.

Steelmill Trades Branch in grade 2

Work technique instruction in this branch takes the form of in-plant training in the production department of a steelmill. In some localities this in-plant training can take place in metal manufacturing firms, in which case it prepares the student for metalworking trades. To make their training as comprehensive as possible, the students circulate between various work points within the enterprise. The purpose of this training is to broaden the students' knowledge of the production and fabrication of iron, steel and other metals. Tasks include the planning and supervision of different manufacturing processes, the operation and maintenance of equipment (e.g. furnaces and rolling mills) and the testing and inspection of material.

Subject to special permission, students can try their hand at shift work.

Metal Workers and Welders Branch in grade 2

Students taking this branch receive further instruction in mechanical sheet metal fabrication, hot and cold straightening, MMA and gas-shielded arc welding, gas cutting, brazing and braze welding, and the use of various machines, aids and tools for erection and jointing.

This branch also includes a *Heavy Plate variant* in which work technique instruction takes place on the premises of firms in the trade and the students gradually build up their skills by circulating between various work points.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for working,- life orientation. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Vm = Workshop Mechanics Branch
 Pm = Metal Workers and Welders Branch
 Jb = Steelmill Trades Branch

Vm and Pm	Total no. lessons in		
	Grade 1	Grade 2	
		Vm and Pm	Jb
Swedish	160	-	-
Working life orientation	40	40	40
Workshop techniques ¹			
Work technique	880 ²	1 120 ²	920 ²
Vocational theory	200	160	360
Physical education	80	80	80
Reserve period	40	-	-
Optional subject (compulsory)			
English	120	120	120
B- or C-language			
Religious knowledge			
Psychology			
Civics			
Consumer education			
Mathematics			
Music or drawing			

¹ Workshop techniques includes the following:

GRADE 1

Drawings, science of materials, calculations, tools and machinery
 Bench work
 Measurement
 Grinding
 Lathe work
 Milling
 Brazing, gas cutting, hot bending, heat treatment
 MMA welding
 Sheet metal fabrication

GRADE 2

Vm - Workshop Mechanics Branch
 Work preparation, work studios, interpretation of drawings, choice of right working method and machinery etc.
 Bench work
 Measurement
 Lathe work
 Milling
 Grinding

Pm - Metal Workers and Welders Branch
 Work preparation, work studios, interpretation of drawings, choice of right working method and machinery etc.
 MMA welding
 Gas-shielded arc welding
 Brazing
 Gas cutting and gas welding
 Mechanized sheet metal fabrication
 Bending and straightening
 Erection and jointing

Gp - Heavy Plate variant

Gas cutting
 MMA welding
 Mechanized welding
 Sheet metal fabrication
 Bending and straightening
 Erection
 Interpretation of drawings - plate rolling
 Work preparation, sheet metal
 Practical heavy plate welding

Jb - Steelmill Trades Branch

Manufacturing processes (in-plant instruction outside the school) Production engineering Electrical engineering Automatic control m

² The number of periods allotted may vary according to the optional subject taken in grades 1 and 2 and a possible free option in grade 2.

Free option implies that the student may exchange a vocational subject for a subject belonging to another line or branch. For example, a student taking English as an optional subject in grades 1 and 2 can acquire general eligibility for post-secondary studios by taking Swedish for 3 periods per week (120 lessons) as a free option in grade 2.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studios.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

⁴ At least one of these optional subjects has to be taken for up to 3 periods per week for at least one school year. The student may exchange the optional subject for work techniques during one of the two grades.

B-language = German or French when taken by the student at compulsory school.

C-language = a foreign language first studied at upper secondary school - German or French (Finnish in certain cases).

Note: The time allocations given in the time schedule refer to the *total number of lessons* for 40 working weeks per grade.

Further remarks. The not number of lessons will be smaller, due among other things to the loss of time entailed by public holidays, days off etc. The number of periods is also affected by the optional subjects chosen by the students; cf. note 2. For these various reasons, the exact loss of time cannot be computed.

After studies

The purpose of this instruction is to equip the students with the basic knowledge and skills required for employment in the engineering industry, including engineering shops, shipyards and steelmills.

In most cases the attainment of skilled status requires one or two years' practical experience, either in the form of vocational activity or through further training.

The Workshop Mechanics Branch can lead to a host of occupations within the engineering industry and elsewhere, e.g. those of welder, milling machine operator, machine setter or machine fitter, or else to employment in the manufacture of mechanical aids and tools. This branch can also provide a foundation for further training in workshop techniques.

Further training of this kind includes, for example, advanced specialized courses in

precision engineering, tool technology and machine erection, as well as advanced specialized course for sawmill engineers.

The Metal Workers and Welders Branch can lead to employment in the manufacture of sheet metal and steel structures of various kinds in the engineering industry and erection work in the building and large-site construction industries (e.g. bridge-building and power projects). This branch can also provide a foundation for further training in the engineering sector, e.g. an advanced specialized course in welding.

The Steelmill Trades Branch is designed to prepare students for advanced positions in steelmills, e.g. those of setter, roller and stoker. This branch can also lead to employment in various metalworking trades other than those occurring in steelmills.

Municipalite

Date _____

awarded on completion of upper secondary schooling ☐

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identify digits)
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Research

Course of studies (complete, reduced or augmented)

Study route code

4 | 3 | 4 | 0 | ☰ | 0 | | |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 0	Free option:			
Working life orientation			5 0 1 1 0				
Physical education			9 0 2 0 0				
Workshop techniques			7 8 9 0 0				
Compulsory option:							
				Participated (voluntary subject):			

Subject(s) partially or entirely deleted

No. 604

Subject(s) (sub-items) in free option line, branch, variant, grade

No. 62W

[illegible]

Heartmaster: Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **working Life orientation**. Instead a note is made to the effect that the student has "participated".

If a student has attended Instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the two-year Workshop Line:

43402-0105 Workshop Mechanics Branch
43403-0103 Platers and Welders Branch
43403-0112 Heavy Plate variant
43401-0107 Steelmill Trades Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Three-year Economics Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (including special course in English), or equivalent.

Structure of studies

Grade 3	Economics and Languages Branch	Administrative Branch	Distribution Branch	Accounting Branch
Grade 2	Variants (see description of line, below)	Common course (also see description of line, below)		
Grade 1				

Description The first year of this line is devoted to a common course of studies. *Shorthand* and *mathematics* are alternative subjects in grade 2. In grade 3 the line is divided into the four branches presented above. Students wishing to take the Economics and Languages Branch in grade 3 take shorthand in grade 2, while those wishing to go on to the Administrative, Distribution or Accounting Branch in grade 3 take mathematics. A student taking shorthand can also take a social or aesthetic variant in grades 2 and 3. The social *variant* involves exchanging a modern language for sociology, while the *aesthetic variant* involves exchanging a modern language for drawing, music or drama for 3 ppw.

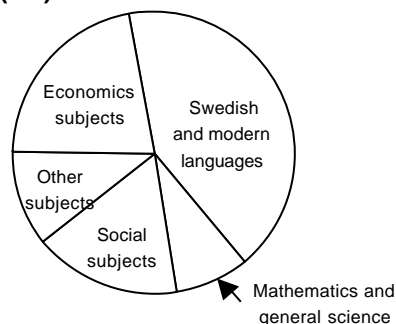
A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course* of studies.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course* of studies.

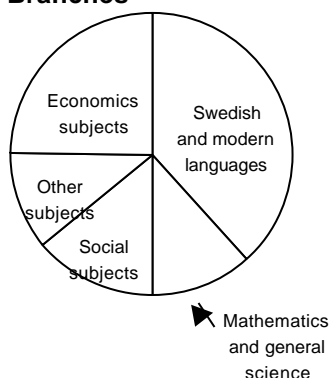
A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course* of studies.

Content

Economics and Language Branch (SP)



Accounting (KA), Distribution (Di) and Administrative (Ad) Branches



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, processing techniques, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education

Res. period = Reserve period.

The characteristic subject of this line in grade 1 are

business economics

typing

office skills

and in grade 2 they are

business economics

typing

shorthand (as an alternative to mathematics).

Instruction in foreign languages occupies a relatively large amount of the time.

Basic economic education in grades 1 and 2 is mainly provided through the teaching of *business economics*, the purpose of which is to equip the students with the basic knowledge which every employee in the clerical and commercial sector or the administrative sector ought to possess.

The students study work within the various functions of an enterprise, such as purchasing, marketing, finance and administration. This subject is also intended to convey a general picture of the enterprise and its role in society.

In *typing* the students are given basic training in typing and machine calculation. In grade 1 or 2 they have off-time schedule lessons in office skills. They are introduced to office aids and they study various routines occurring at an office.

Students in grade 2 take either mathematics or shorthand. (See time schedule.) In *shorthand* the students learn the elements of independent shorthand notation, Swedish dictation and the transcription of shorthand notes. In grade 3 they also study shorthand in foreign languages.

In the Administrative, Distribution and Accounting Branches in grade 3, students take either administration, distribution or accounting as a special subject, and also in these branches they continue their studies of business economics, now focussing on company administration.

Studies of *law* in grade 3 provide a knowledge of those sectors of civil law, the law of procedure and criminal law which are relevant above all to business practice

Economics and Languages Branch

Students taking this branch pursue language studies to a far greater extent than those taking the other three branches. Together with the three-year Liberal Arts Line, the Economics and Languages Line is the study route in upper secondary school providing the greatest opportunities of studying languages.

Students taking the Economics and Languages Branch can choose between law and practical secretarial work.

Administrative Branch

The characteristic subject of this branch is *administration*. Instruction in this subject covers among other things the organization and activities of national and local government administration, the organization and methods of social policy and the accounting systems employed by national and local authorities.

Distribution Branch

The characteristic subject of this branch is *distribution*, which among other things covers marketing principles, market analysis, purchasing organization, cost benefit analysis and questions concerning imports and exports.

Accounting Branch

The characteristic subject of this branch is *accounting*, which among other things deals with industrial accounting, calculations, balance sheet theory and company taxation, analysis of accounts, and financial planning.

At some schools students can opt for a combination of the Accounting and Distribution Branches in grade 3. (Experimental scheme in progress since 1st July 1978.)

In addition to their ordinary instruction, students in grade 3 have to under-take a *special project*, either individually or in groups. The main purpose of this project is to develop their capacity for working independently. The subject area and title of each students special project are to be stated in his or her leaving certificate, but no marks are to be awarded for this work.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded for office skills. Instead an entry is made to the effect that the student has "Participated" in this subject.

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	Total no. lessons in					
	Grade 1	Grade 2	Grade 3			
			Sp	Ad	Di	Ka
Swedish	3	3	3	3	3	3
English	3	2	4	3 ³	3 ³	3 ³
B-language (German/French) ¹	3 ¹	3	4			
C-language ²	4	3	4 ⁴			
History	2	2				
Religious knowledge			2	2	2	2
Psychology			2	2	2	2
Civics	3	3	2.5	2.5	2.5	2.5
Mathematics	5	3/0 ⁵		3	3	3
General science	3					
Business economics	2	8		3	3	3
Accounting						7
Distribution					7	
Administration				7		
Law			2/0 ⁶	2	2	2
Practical secretarial work			0/2 ⁶			
Typing	2	1	1			
Shorthand		0/3 ⁵	3			
Physical education	3	3	1	1	1	1
Reserve period ⁷	1	1	1.5	1.5	1.5	1.5

Sp = Economics and languages Branch
 Ad = Administrative Branch
 Di = Distribution Branch
 Ka = Accounting Branch

¹ B-language = German or French when taken by the student at compulsory school. A B-language can be exchanged for a C-language, in which case the latter is allotted 4 ppw.

² C-language = a foreign language first studied at upper secondary school: German, French, Russian, Spanish (in certain cases Italian, Portuguese or Finnish).

³ One of these languages is compulsory.

⁴ If the C-language taken in grade 3 is a language other than German or French, 5 ppw are allotted, in which case the other foreign language taken is reduced by 1 ppw.

⁵ The student chooses either mathematics or shorthand in grade 2.

⁶ Choice between law and practical secretarial work.

⁷ *Reserve periods* are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Aesthetic variant in grades 2 and 3
 (Only for students taking the Economics and Languages Branch in grade 3). One modern language is exchanged for *drawing* (aesthetic speciality) or *music* (aesthetic speciality) or for *drama*, for 3 ppw.

Social variant in grades 2 and 3
 (Only for students taking the Economics and Languages Branch in grade 3). One modern language is exchanged for 3 ppw sociology.

Note:
 School year = 40 weeks (subject to a certain loss of time due to public holidays, days off etc.).
 1 period per week (pp) = 40 minutes per week

Grade 1 students have 20 lessons in office skills off the time schedule.

After studies

The three-year Economics Line provides basic training for employment in enterprise and administration.

This line also provides a good foundation for further studies, and it is a good point of departure for further education in many

other fields besides that of economics.

This line confers general eligibility for post-secondary education and special eligibility for many post-secondary education programmes.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr. mth. date, identity digit)
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Three-year Economics Line

Branch/Variant	Course of studies (complete, reduced or augmented)	Study route code 3 4 7 1 0
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Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish			6 5 6 0 S	Business economics			2 0 2 4 0
Swedish language			6 5 6 0 L	Accounting			2 0 7 1 0
Literature and general languages			6 0 3 0 0	Distribution			2 0 1 1 0
English			6 1 3 0 B	Administration			5 4 2 0 0
French B			6 6 8 0 B	Law			5 3 7 2 0
German B				Practical secretarial work			2 1 6 2 0
C				Typing			2 1 5 0 0
C				Shorthand			2 1 7 5 0
Sociology			5 5 7 5 0	Physical education			9 0 2 0 0
Aesthetic variant subject							
History			0 2 3 0 0				
Religious knowledge			0 6 7 0 0				
Psychology			0 5 5 0 0				
Civics			5 4 8 0 0				
Mathematics SE			3 5 5 0 S				
General science E ₁			3 8 4 5 0	Office skills			2 1 4 1 0
General science E ₂			3 8 4 5 0	Participated (voluntary subject)			

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey.

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for office skills. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

SE = Course with social scientific and economic bias,

E₁ = Course with physical bias.

E₂ = Course with chemical and biological bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the three-year Economics Line:

34718-0203	Three-year Economics Line (SSG and SSG-13)
34712-0108	Administrative Branch
34711-0100	Distribution Branch
34710-0102	Accounting Branch
34710-0200	Accounting and Distribution Branch
34713-0106	Economics and Languages Branch, with no variant
34713-0115	Economics and Languages Branch, Aesthetic variant
34713-0124	Economics and Languages Branch, Social variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
- 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
- 8 = augmented course of studies.
- 9 = reduced course of studies.
Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
- 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
- 6 = Student excused or exempted from the subject or activity.
- 8 = Voluntary subject.
- 9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Three-year Liberal Arts Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (including special course in English) or equivalent.

Structure of studies

Grade 3	Normal time schedule	Semi-Classical variant	Classical variant	Aesthetic variant	Social variant
Grade 2					
Grade 1	Common course				

Description

This line remains undivided throughout grade 1. As from grade 2 students can choose between following the normal time schedule and taking the Classical variant (which includes Latin and Greek), the Semi-Classical variant (which includes Latin), the Social variant (including sociology), or the Aesthetic variant (which includes music, drawing or drama). A student taking the Social or Aesthetic variant exchanges one modern language for the variant subject for 3 ppw.

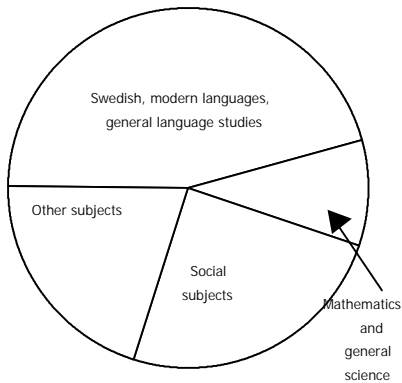
A student taking the instruction and ac-

tivities compulsory for this line thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects according to the normal time schedule

The pie chart shows the time allocations of the various subjects taken during the three grades. Efforts are made to integrate subjects,

Social subjects = history, religious knowledge philosophy, psychology, civics.

Other subjects = history of art and music, music/drawing, physical education, reserve period.

The main emphasis of instruction in this line is on the following subjects:

languages

history

civics.

The characteristic subject of this line is

general language studies or Latin, the latter being the subject characterizing the Classical or Semi-classical variant.

The Liberal! Arts Line and the Economics and Languages Branch of the three-year Economics Line are the upper secondary school study routes offering the greatest opportunities for the study of *modern languages*.

The purpose of foreign language teaching as regards continuation languages (English and the B-language) is to develop the student's ability to understand and use the foreign language in speech and writing and also for the student to acquire a certain knowledge of the culture, social conditions etc. of the language area concerned. Instruction in beginners' languages (C-languages) is designed to familiarize the students with a limited vocabulary of central words and expressions and to enable them to read and correctly pronounce reading passages of moderate difficulty, to understand the spoken language and to express themselves reasonably correctly, above all in the spoken language and, as a secondary aim, in writing. The students are also to acquire some knowledge of the culture, social conditions etc. of the language area concerned.

The teaching of civics involves studying social life in geographical, economic, political and sociological terms, the intention being for the pupils to attain a general grasp of social problems. Among other things the students study population, industry and commerce and socioeconomics. Socio-economic problems are studied, for example, by investigating a particular industry in terms of natural resources, marketing, labour supply and so forth. This subject also includes systems of government, democracy and dictatorship, the formation of opinion, social planning and current social issues.

Mathematics is compulsory in grade 1 only. The students can choose between two courses; see time schedule, note 6. Mathematics with a scientific-technical focus can only be taken in grade 1 of this line. Students who have chosen mathematics with a social-scientific and economic focus can continue their mathematical studies in grades 2 and 3 by taking what is termed an augmented course of studies; see page 1.

General language studies convey a knowledge of those portions of the Latin and Greek languages which survive in the western languages, for example as elements of vocabulary, scientific terms, quotations and so on. Among other things this course includes the reading of passages in modern languages, by which means the students can practice interpreting and tracing the origins of international words and expressions. Latin reading passages are also used, so as to acquaint the students with the structure of the Latin language.

Students choosing to take *Latin* acquire a broader knowledge of the international vocabulary and receive additional grammatical training, which can help them in their studies of other languages. One of the purposes of this instruction is to enable the students to understand easy passages of Latin prose. The passages chosen illustrate the importance of Latin culture down to our own times. Roman society and art and the history of Roman literature are also dealt with in connection with the reading passages.

Students choosing to take *Greek* acquire a grounding in Classical Greek. Greek prose and poetry are studied, together with adapted and original texts and translations. The students also study Greek art and architecture, Greek religion and the history of Greek literature and philosophy.

In addition to their ordinary instruction, students in grade 3 have to undertake a *special project*, either individually or on a group basis. The purpose of this special project is to develop their capacity for independent work. The subject field and title of the special project are entered in each student's leaving certificate, but no marks are awarded for this work.

Marks

Marks are awarded for all subjects except where other wise indicated. No marks are awarded, however, for the history of art and music. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale. 5 being the maximum award.

Time schedule

Subject	No. ppw in						
	Grade	Normal time schedule in grade		Semi-classical variant in grade		Classical variant in grade	
	1	2	3	2	3	2	3
Swedish	3	3	4	3	4	3	4
English	3	3	3	3	} 3+3 ³	} 2 3 ⁴	} 2 ⁴
B-language (German/French) ¹	3 ¹	3	4	3			
C-language ²	4	3	4 ⁵	3			
General language studies		3					
Latin				7	7	7	7
Greek						4	4
History	2	4	2	4	2	4	2
Religious knowledge			3		3		3
Philosophy			2		2		2
Psychology		2		1		1	
Civics	3	3	4,5		2		2
Mathematics ⁶	5						
General science	5	2		2		2	
History of art and music	1	1		1		1	
Music or drawing	1	1		1		1	
Physical education	3	3	2	3	2	3	2
Reserve period ⁷	1	1	1,5	1	1,5	1	1,5

¹ *B-language* = German or French when taken by the student at elementary school.

² *C-language* = A foreign language first studied at upper secondary school: German, French, Russian, Spanish (in certain cases Italian, Portuguese or Finnish).

³ Two of these languages are compulsory.

⁴ One of these languages is compulsory.

⁵ In grade 3, C-languages other than German and French are allotted 5 ppw, in which case another language is reduced by 1 ppw.

⁶ In mathematics the student chooses between two courses: mathematics with a scientific-technical focus and mathematics with a social-scientific and economic focus. (Only the latter of these is offered to students entering grade 1 from the autumn term 1978 and onwards.)

⁷ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies. Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Note 1:

Aesthetic variant in grades 2 and 3.

One modern language is exchanged for *drawing* (aesthetic speciality) or *music* (aesthetic speciality) or *drama* for 3 ppw.

Social variant in grade 2 and 3.

One modern language is exchanged for *sociology* for 2 ppw.

Note 2:

School year = 40 weeks (subject to a certain deduction for public holidays, days off etc.)

1 ppw (period per week) = 40 minutes per week

After studies

The Liberal Arts Line provides a general education with particular emphasis on languages. A knowledge of general language studies, Latin and Greek provides a foundation for further language studies, for example. This instruction also provides a foundation for employment in various spheres of activity, usually after

some form of further education or after induction training at the place of employment.

The Liberal Arts Line confers general eligibility for post-secondary studies and also special eligibility for several education programmes at university and college.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr., mth., date, identity digits)

Three-year Liberal Arts Line

Variant

Course of studies (complete, reduced or augmented)

Study route code

0 4 0 0 0 0 0 0 0 0 0 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Psychology			0 5 5 0 0 0
Swedish language			6 5 6 0 S	Civics			5 4 8 0 0 0
Literature and general languages			6 5 6 0 L	Mathematics SE			3 5 5 0 S
English			6 0 3 0 0	Mathematics NT			3 5 5 0 N
French B			6 1 3 0 B	General science			3 8 4 5 0
German B			6 6 8 0 B	Music			1 0 5 0 0 0
C				Drawing			1 3 8 0 0 0
C				Physical education			9 0 2 0 0 0
Sociology			5 5 7 4 0				
Aesthetic variant subject:							
General language studies			6 8 0 3 0				
Latin			6 2 5 0 0				
Greek			6 2 3 0 0				
History			0 2 3 0 0	History of art and music			1 8 4 0 0 0
Religious knowledge			0 6 7 0 0	Participated (voluntary subject)			
Philosophy			0 1 2 4 0				

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **the history of art and music**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

SE = Course with social scientific and economic bias.

NT = Course with natural scientific and technical bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the three-year Liberal Arts Line:

04008-0018 Three-year Liberal Arts Line with no variant
04003-0019 Aesthetic variant
04002-0011 Social variant
04000-0015 Semi-classical variant 04001-0013 Classical variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "participated" entered for subjects or activities for which this entry is required.

A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Three-year Natural Sciences Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (including special course in English and mathematics courses), or equivalent.

Structure of studies

Grade 3	Common course
Grade 2	
Grade 1	

Description

This line is not divided into branches or variants, and students pursue the same studies throughout the three grades.

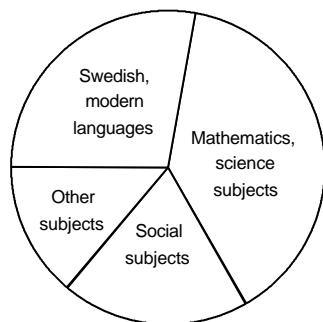
A student taking the instruction and activities compulsory for this line thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete

course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects in grade 1

The pie chart shows the time allocations for different subjects in grade 1. The time allocation for the characteristic subject of this line, processing techniques, is increased in grade 2 (see time schedule). Efforts are made to integrate the various subjects.

P.E. = Physical education
Res. period = Reserve period.

The main emphasis of instruction in this line is on

mathematics

physics

chemistry

biology

Instruction in **modern languages** also occupies a relatively large proportion of the students' time.

Instruction in mathematics is adjusted from the very outset to the requirements of the physics and chemistry courses. The students are familiarized with a number of essential concepts and methods in algebra, geometry, functions, the theory of probability and statistics. They also learn to calculate with technical aids, and they are given a general introduction to the uses of mathematics in other subject fields.

Studies of physics begin in grade 1 with mechanics. The main purpose of this course is to provide a foundation for instruction in other aspects of physics. It also includes studies concerning various forms of energy. More advanced studies in mechanics are pursued in grade 2, but the main emphasis of instruction in this grade is on electricity. Studies in grade 3 are concerned with the general theory of wave motion, electro-magnetic waves and atomic physics.

Studies in chemistry include atomic structure, chemical bonding, organic and inorganic substances and rocks and minerals. The students also acquire some knowledge of the industrial applications of chemical methods. A great deal of time is devoted to experimentation and analysis in order to make the theoretical arguments more real.

This is the only line of upper secondary school in which biology is compulsory. The purpose of biology teaching is to provide the students with a general introduction to the subject and to equip them with the initial knowledge required for further biological studies. Special attention is paid to biological phenomena of importance to man, his health and survival, and to human society. A general survey of the principal groups of the plant and animal

kingdoms is given in grade 2, which also includes instruction in genetics. Topics dealt with in grade 3 include evolution, cellular and general physiology, including biochemistry, and etology and ecology. Against this background the students then go on to consider certain questions of practical importance such as food production on land and in the water, environment conservation and problems of human survival.

In addition to their ordinary instruction, grade 3 students also have to carry out a special project, either singly or in groups. The main purpose of project is to develop the students' capacity for independent work. The subject field and title of the special project are quoted in the student's leaving certificate, but no mark is awarded for this work.

Comparison with the four-year Technology Line

- The two lines have identical mathematics, physics and chemistry courses.
- Students taking the Natural Sciences Line do more modern languages.
- Technology Line students can only take biology as part of an augmented course of studies.
- The Natural Sciences Line does not include the

Comparison with the three-year Social Sciences Line

- The two lines include practically the same subjects, but
- Natural Science students do more mathematics.
- Physics, chemistry and biology rank as independent subjects in the Natural Sciences Line.
In the Social Sciences Line these subject fields are dealt with more briefly under a single subject heading, namely general science.
- Students taking the Social Sciences Line spend rather more time on modern languages and social subjects.

Also see page 4.

Marks

Marks are awarded for all subjects except where otherwise indicated.

No marks are awarded for the history of art and music. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale, 5 being the maximum award.

Time schedule

Subject	No. ppw in		
	Grade 1	Grade 2	Grade 3
Swedish	3	3	3
English	3	2	}
B-language ₂ (German/French) ¹	3 ¹	3 ³	
C-language ²	4	}	}
History	2		
Religious knowledge			2
Philosophy			2
Psychology		1	
Civics	3		2
Mathematics	5	5	5
Physics	2.5	4	4
Chemistry	2.5	2.5	2
Biology		1.5	3.5
History of art and music	1	1	
Music or drawing	1	1	
Physical education	3	3	2
Reserve period ⁴	1	1	1.5

B-language = German or French when taken by the student in compulsory school. **A B-language can be exchanged for a C-language, in which case the latter is allotted 4 periods per week.**

C-language = a foreign language first studied at upper secondary school: German, French, Russian, Spanish (in certain cases Italian, Portuguese or Finnish).

³ **One of these languages** is compulsory.

⁴ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.
Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Note: Length of school year = 40 weeks (with some deduction for public holidays, days off etc.).
1 period per week (~) = 40 minutes per week.

After studies

The Natural Sciences Line provides a broad general education which can serve as a foundation for employment in many different fields, usually after some form of further education or induction training.

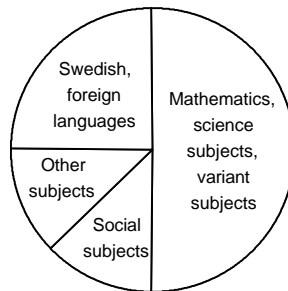
This line confers general eligibility for post-secondary studies and also special eligibility for the majority of postsecondary education programmes.

Experimental alternative design of the Natural Sciences Line

Experiments involving a variant of the Natural Sciences Line or NT classes were started by a number of municipalities in the school year 1977/78.

The pie charts illustrate the relative time allocations of different subjects in the variant and in NT classes; cf. page 2.

Variant of Natural Sciences Line



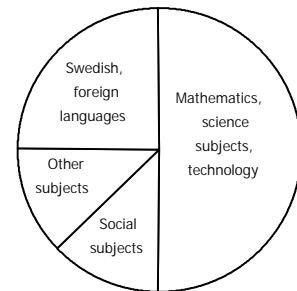
Science subjects = physics, chemistry, biology

Social subjects = civics, history, religious knowledge, psychology/philosophy

Other subjects = music/drawing, physical education, reserve period.

The variant subject is not the same in all experimental schools. It may focus on data technology or on environmental engineering. Variants are also being planned focussing on energy technology, communications and health engineering. Students take the variant subject in grades 2 and 3, working with a considerable degree of independence.

NT class in grades 1 and 2



Science subjects = physics, chemistry, biology.

Social subjects = civics, history, religious knowledge, psychology/philosophy.

Other subjects = music/drawing, physical education, reserve period.

Technology is taken in grades 1 and 2, just as in the Technology Line. Instruction in this subject provides the students with basic technical knowledge, and they also receive practical training in the school workshop. In grade 3 they then opt for the Natural Sciences Line or one of the branches of the Technology Line.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr. mth. date, identity digits)
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Three-year Natural Science Line

Variant
Course of studies (complete, reduced or augmented)
Study route code 0 4 0 2 9 0 0 0 5

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Biology			3 0 1 0 0
Swedish language			6 5 6 0 S	Data techniques			5 2 2 6 0
Literature and general languages			6 5 6 0 L	Energy and measuring techniques			7 3 1 9 0
English			6 0 3 0 0	Health science			9 8 3 7 0
French B			6 1 3 0 B	Communication			5 1 4 3 0
German B			6 6 8 0 B	Environmental technology			9 8 5 3 0
C				Music			1 0 5 0 0
C				Drawing			1 3 8 0 0
History			0 2 9 0 0	Physical education			9 0 2 0 0
Religious knowledge			0 6 7 0 0				
Philosophy			0 1 2 4 0				
Psychology			0 5 5 0 0				
Civics			5 4 8 0 0				
Mathematics NT			3 5 5 0 N				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0	Participated (voluntary subject)			

Special project

| | | | |

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **the history of art and music**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a pupil who has completed a complete course of studies in upper secondary school or in grade 3 of the four-year Technical Line of upper secondary school. In order, however, for a leaving certificate to be awarded, studies in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall only be required insofar as they are prescribed in regulations issued by the National Board of Education. Leaving certificates may also be issued after studies corresponding to studies in the four-year Technical Line of upper secondary school with the exception of B-language, C-language, history, religious knowledge and civics. In a leaving certificate of this kind, a mark for physical education is required only insofar as stipulated in regulations issued by the National Board of Education. (SFS 1974:442)

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.
C = C-language, a foreign language first studied at upper secondary school.
NT = Course with natural scientific and technical bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes are applicable to the three-year Natural Science Line:

04029-0005 Three-year Natural Science Line with no variant
04020-0013 Data Techniques variant
04024-0015 Energy variant
04025-0012 Health variant
04021-0011 Communication variant
04022-0019 Environmental Technology variant
04023-0017 Natural Science variant

The study route code is also to include a final digit showing the student's course at studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required.
A student exempted from a subject or activity but satisfying the requirements in all other subject3 is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper second" schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's cour3e of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Three-year Social Sciences Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (including special English course) or equivalent.

Structure of studies

Grade 3	Normal time schedule	Aesthetic variant	Social variant
Grade 2			
Grade 1	Common course		

Description

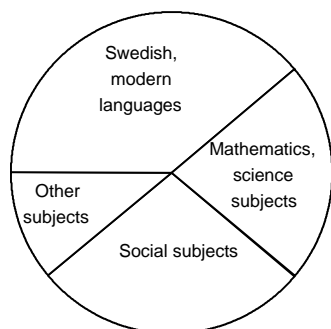
Instruction during grade 1 is the same for all students. From grade 2 onwards students can choose between following the normal time schedule for this line and taking either a *social variant* with sociology or an *aesthetic variant* with music drawing or drama. Students taking a variant exchange one modern language for the variant subject for 3 ppw.

A student taking the instruction and activities compulsory for this line thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or she is said to take a *reduced course of studies*.

Content



Distribution of subjects according to the normal time schedule

The pie chart shows the time allocations for different subjects during the three grades. Efforts are made to integrate the various subjects.

Social subjects = history, religious knowledge, philosophy, psychology, civics.

Other subjects = history of art and music, music/drawing, physical education, reserve period.

The main emphasis of instruction in this line is on

civics

mathematics

general science

Instruction in modern languages also occupies a large proportion of the students' time.

The teaching of civics involves studying social life in geographical, economic, political and sociological terms, the intention being for the students to attain a general grasp of social problems. Among other things the students study population, industry and commerce and socio-economics. Socio-economic problems are studied, for example, by investigating a particular industry in terms of natural resources, marketing, labour supply and so forth. This subject also includes systems of government, democracy and dictatorship, the formation of opinion, social planning and current social issues.

Students can choose between two *mathematics* courses: one with a social scientific and economic bias and the other with a scientific and technical bias. The social scientific and economic course entails a total of 11 ppw for the three grades, with a certain emphasis on statistics and practical statistical exercises in civics and other subjects. Students opting for mathematics with a social scientific and economic bias can continue this subject in grades 2 and 3: see time schedule, note 5. This course has a larger time allocation, namely 15 ppw for the three grades. It is identical with the course taken in the three-year Natural Sciences Line and the four-year Technology Line, and its purpose is to familiarize the students with, among other things, a number of essential concepts and methods in algebra, geometry, functions, the theory of probability and statistics. The students also learn to calculate using technical

aids, and they are given a general introduction to the uses of mathematics in other subject fields.

General *science* includes physics, chemistry, biology and geo-science. Among other things the students learn to observe phenomena and events in the natural environment with particular regard to their importance to the individual and society. Instruction also deals with aspects of environment conservation. The students take part in laboratory exercises and analyse their experiments. Excursions of various kinds are an important element in the sections dealing with ecology and natural geography.

Instruction also covers the development of major scientific ideas together with a number of salient features of modern science.

The purpose of foreign language *teaching* as regards continuation languages (English and the B-language) is to develop the students ability to understand and use the foreign language in speech and writing and also for the student to acquire a certain knowledge of the culture, social conditions etc. of the language area concerned. Instruction in beginners' languages (C-languages) is designed to familiarize the students with a limited vocabulary of central words and expressions and to enable them to read and correctly pronounce reading passages of moderate difficulty, to understand the spoken language and to express themselves reasonably correctly, above all in the spoken language and, as a secondary aim, in writing. The students are also to acquire some knowledge of the culture, social conditions etc. of the language area concerned.

In addition to their ordinary instruction, students in grade 3 have to undertake a special project, either individually or on a group basis. The purpose of this special project is to develop their capacity for independent work. The subject field and title of the special project are entered in each student's leaving certificate, but no marks are awarded for this work.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for the history of art and music. Instead a note is made to the effect that the student has "Participated".

Marks are awarded on a five-point scale. 5 being the maximum award.

Time schedule

Subject	No. ppw in		
	Grade 1	Grade 2	Grade 3
Swedish	3	3	4
English	3	2	} 3 ³
B-language ² (German/French) ¹	3 ¹	3	
C-language ²	4	3	} 4 ^{3 4}
History	2	4	
Religious knowledge			2
Philosophy			3
Psychology		2	2
Civics	3	3	4.5
Mathematics ⁵	5	2	4
General science	5	4	
History of art and music	1	1	
Music or drawing	1	1	
Physical education	3	3	2
Reserve period ⁶	1	1	1.5

¹ B-language = German or French when taken by the student at compulsory school. A B-language can be exchanged for a C-language, in which case the latter is allotted 4 ppw.

² C-language = a foreign language first, studied at upper secondary school: German, French, Russian, Spanish (in certain cases Italian, Portuguese or Finnish).

³ Two of the three languages (English, B-language and C-language) are compulsory.

⁴ In grade 3, C-languages other than German and French are allotted 5 ppw. in which case another language is reduced by 1 ppw.

⁵ In mathematics the student chooses between two courses: mathematics with a scientific-technical bias and mathematics with a social-scientific and economic bias. (Only the latter of these is offered to students entering grade 1 from the autumn term 1978 and onwards.)

⁶ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Note 1

Aesthetic variant in grades 2 and 3, One modern language is exchanged for drawing (aesthetic speciality) or music (aesthetic speciality) or drama for 3 ppw.

Social variant in grades 2 and 3.

One modern language is exchanged for sociology for 3 ppw.

Note 2.

School Year = 40 weeks (subject to a certain deduction for public holidays, days off etc.).

1 ppw (period per week) = 40 minutes per week.

After studies

The Social Sciences Line provides a general education and can provide a foundation for employment in many different fields, usually after some form of further education or induction training.

This line confers general eligibility for post-secondary studies and also special eligibility for several education programmes at university and college.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Three-year Social Science Line

Variant

Course of studies (complete, reduced or augmented)

Study route code

0 4 0 1 1 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Mathematics SE			3 5 5 0 S
Swedish language			6 5 6 0 S	Mathematics NT			3 5 5 0 N
Literature and general languages			6 5 6 0 L	General science			3 8 4 5 0
English			6 0 3 0 0	Music			1 0 5 0 0
French B			6 1 3 0 B	Drawing			1 3 8 0 0
German B			6 5 8 0 B	Art education			9 0 2 0 0
B							9 0 2 0 0
B							
Sociology			5 5 2 4 0				
Aesthetic variant subject:							
History			0 2 3 0 0				
Religious knowledge			0 6 7 0 0				
Philosophy			0 1 2 4 0				
Psychology			0 5 5 0 0	History of art and music			1 8 4 0 0
Civics			5 4 8 0 0	Participated (voluntary subject):			

Special project

- - - - -

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **the history of art and music**. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studios equalling a complete course of upper secondary school studios or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studios corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

SE = Course with social scientific and economic bias.

NT = Course with natural scientific and technical bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the three-year Social Science Line:

04018-0017 Three-year Social Science Line with no variant

04010-0014 Aesthetic variant

04011-0012 Social variant

The study route code is also to include a final digit showing the student's course of studios, as per the following:

0 = complete course of studios, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studios, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studios.

9 = reduced course of studios.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full list of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studios, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studios but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studios.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Four-year Technology Line

Admission Requirements Leaving certificate from grade 9 of compulsory school (*including special English and mathematics courses*), or equivalent.

Structure of studies

Grade 4	Mechanical Engineering Branch	Con-struction variant	Building variant	Electro-power variant	Telecom-munications variant	Chemical Engineering Branch
Grade 3		Building Branch		Electro-engineering Branch		
Grade 2	Common course					
Grade 1						

Description

All students taking this line follow the same course of studies for the first two grades. In grade 3 the line divides into four branches: Mechanical Engineering, Building, Electro-engineering and Chemical Engineering. Further specialization ensues in grade 4, with the division of the Building Branch into a Construction variant and a Building variant and the division of the Electro-Engineering Branch into Electro-power and Telecommunications variants.

Leaving certificates are obtainable at the end of grade 3.

Job experience

Job experience is a compulsory ingredient of instruction in this line and comprises school practice and field practice.

School practice totals 200 hours for the first two grades and involves on timetable instruction in the school workshop.

Field practice involves paid probationary employment at workplaces and comprises about six weeks during the summer following grade 2 and about six weeks during the summer following grade 3, though this latter requirement only applies to students intending to continue their studies in grade 4.

A student taking the instruction and activities compulsory for this line and the branch opted for thereby takes a *complete course of studies*.

A student can also take one or more subjects over and above the complete course of studies, in which case he or she is said to take an *augmented course of studies*.

A student having appreciable difficulties in one or more subjects can be exempted from not more than two compulsory subjects, in which case he or -he is said to take a *reduced course of studies*.

Content

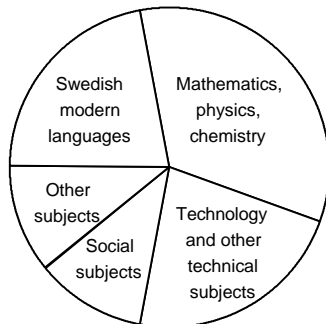
The main emphasis of instruction in this line is on **the technical subjects** included in the time schedule for the various branches and variants in grades 3 and 4 (see time schedule) and on

technology

mathematics

physics

chemistry



Distribution of subjects

The pie chart shows the time allocations for different subjects in the first three grades. Efforts are made to integrate the various subjects.

Social subjects = history, religious knowledge, civics.

Other subjects = physical education, reserve period.

Instruction in *technology* is designed to lay the foundations of engineering working methods, at the same time providing the students with an elementary knowledge of technical subject fields which are common to all branches. This instruction includes science of materials, mechanics, strength of materials and draughtsmanship and projection. As a rule instruction is based on practical working examples, such as a known structure which is investigated in various respects. In this way the theoretical arguments acquire a practical application and the students are given systematic training from the very outset in technical working methods and acquire a general view of the different parts of the subject.

Mechanical Engineering Branch (Ma)

The characteristic subjects of this branch are shown in the time schedule.

Instruction in *design Ma* includes, among other things, mechanics, strength of materials, construction of apparatus, transport equipment, supporting constructions, machinery construction and design tasks.

Energy familiarizes the students with such matters as the construction and principles of machinery, apparatus and facilities and various energy processes.

Production engineering Ma comprises science of materials manufacturing techniques and production engineering.

Special project Ma in grade 4 is intended to provide a deeper knowledge of design and production and also to develop the student's capacity for independent work based on engineering principles and methods.

Building Branch (By)

The characteristic subjects of this branch are shown in the time schedule.

In *building technology* students are taught about building materials and

building techniques and the construction of buildings.

Design By includes general strength of materials, various designs, soil mechanics and foundations.

This branch divides into two variants in grade 4. Design By and housing and town planning are allotted somewhat less scope in the Construction variant, which instead provides relatively comprehensive instruction in construction. The main emphasis of the Building variant is on design by and on housing and town planning.

Electro-engineering Branch (EI)

The characteristic subjects of this branch are shown in the time schedule.

Instruction in *electricity* includes D.C. circuits, magnetic fields, electric fields, A.C. circuits and measuring techniques.

Electronics deals with electronic components and circuits, amplifiers measuring techniques etc.

This branch divides into two variants in grade 4. Automatic control EI is common to both these variants. Electronics (major course), telecommunications, system engineering and electrical power are peculiar to the Telecommunications variant. Electronics (minor course), electrical machinery and electrical installation are peculiar to the Electro-power variant. Students completing this variant can acquire theoretical qualifications for general eligibility as electrical contractors.

Chemical Engineering Branch

The characteristic subjects of this branch are shown in the time schedule.

This branch is very much concerned with experimentation and analysis and with the mathematical treatment of various problems.

Special project Ke in grade 4 is intended to provide students with an opportunity of making in-depth studies of a chosen field of chemistry and also to develop their capacity for independent work according to the principles and methods of engineering.

In addition to their ordinary instruction, grade 3 students in all branches have to undertake a *special project*, either individually or on a group basis. The main purpose of this project is to develop the students' capacity for independent work. The subject field and title of the special project are stated in the leaving certificate, but no mark is awarded for it.

Marks

Marks are awarded for all subjects except where otherwise indicated. No marks are awarded, however, for school and work studies. Instead a note

Is made to the effect that the student has "Participated". Marks are awarded on a five-point scale, the maximum being 5.

Time schedule

Subject	No. ppw in grade			
	1	2	3	4
Swedish	3	3	2	
English	3	2	1 ²	
B-language (German/French) ¹	3 ¹	3	}	
History	2	2		
Religious knowledge			2	
Ergonomics				
Civics			2	2
Mathematics	3		5	
Physics	5	5	4	
Chemistry	2,5	4		
Technology	2,5	4		
Other technical subjects (see time schedules below)	6	5	11,5	30
Business economics				
Physical education	3	3	1	
Reserve period ³	1	1	1,5	3

Building Branch

Mechanical Engineering Branch

Technical subjects	No. ppw in grade	
	3	4
Design Ma	5,5	5,5
Energy		7
Production Ma	4	7,5
Automatic control Ma		3
Electrical engineering Ma	2	2
Special project Ma		5

Technical subjects	No. ppw in grade		
	3	4	
		An	Hb
Building techniques	6		
Design By	5,5	8	12
Production By		6	6
Housing and town planning		3	6
Construction		10,5	3,5
Heating ventilation and plumbing		1	1
Electrical engineering By		1,5	1,5

Electro-engineering Branch

Technical subjects	No. ppw in grade		
	3	4	
		Kr	Tt
Electricity	7		
Electronics	2,5	6	8
Mechanical engineering EI	2		
Automatic control EI		5	5
Telecommunications			8
System engineering			4
Electrical machinery		9	
Electrical construction		10	
Electrical power			5

Chemical Engineering Branch

Subject	No. ppw in grade	
	3	4
Physical chemistry	3,5	
Organic chemistry	6	
Electrical engineering Ke	2	
Biochemistry		3
Analytical and physical chemistry		12
Chemical technology		7
Technical chemistry		4
Special project Ke		4

¹ B-language = German or French when taken by the student at compulsory school. A B-language can be exchanged for a C-language, in which case the latter is allotted 4 ppw.

²One of the two, languages English and B- (or C-language) is compulsory.

³ Reserve periods are applied to purposes not having a direct bearing on any of the other subjects included in the line of studies.

Examples: educational and vocational orientation, industrial and social affairs, cultural questions.

Kr = Electro-power variant

Tt = Telecommunications variant

An = Construction variant

Hb = Building variant

Note: Duration of school year = 40 weeks (with some deduction for public holidays, days off etc.). 1 period per week (ppw) = 40. minutes, per week. Students have 10 work study lessons in grade 3 over and above the time schedule.

After studies

The four-year Technology Line provides basic technical vocational education.

This line can lead to various duties in design, production and work supervision within the speciality chosen. It can also lead to planning, purchasing or sales duties. The aim is for the student to be able, immediately on completing these studies, to apply for employment or to go on to further technical education or studies of other kinds.

The Electrical Power variant of the Electro-engineering Branch can confer theoretical qualifications for general eligibility as an electrical contractor.

Students completing grade 3 of the Mechanical Engineering or Building Branch and also completing the prescribed vocational practice can apply for the advanced specialized course Heating, Ventilation and Plumbing Installation Techniques.

The following are additional examples of further education.

- Business economics for engineers training as buyers.
- Business economics for sales engineer training.
- Training course for orthopaedic engineers.
- Persons with at least four years job experience in industry can apply for training as safety engineers.
- Social administration course.
- Business economics course.

This line confers general eligibility for post-secondary studies and special eligibility for the majority of postsecondary education programmes.

Students completing the four-year Technology Line are commonly referred to as certified upper secondary school engineers.

Students aiming for an engineering degree can already apply for postsecondary education programmes in the technical professional training sector (universities of technology) after grade 3.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Municipality

Date

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Four-year Technology Line, Chemical Engineering Branch

Course of studies (complete, reduced or augmented)

Study route code

4 5 7 5 0 0 1 0 5

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Biochemistry			3 4 0 8 0
Swedish language			6 5 6 0 S	Analytical and physical chemistry ..			3 4 0 4 0
Literature and general languages			6 5 6 0 L	Chemical technology			7 4 0 5 0
English			6 0 3 0 0	Technical chemistry			7 4 7 6 0
French B			6 1 3 0 B	Special project Ke			8 8 6 7 0
German B			6 6 8 0 B				
..... C							
History			0 2 3 0 0				
Religious knowledge			0 6 7 0 0				
Ergonomics			5 0 3 6 0				
Civics			5 4 8 0 0				
Mathematics NT			2 5 5 0 N				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Business economics			2 0 2 4 0				
Technology			8 8 7 5 0	Physical education			9 0 2 0 0
Physical chemistry ..			3 4 2 4 0	School workshop practice and field practice			8 8 6 6 0
Organic chemistry ..			3 4 6 0 0	Work studies			5 0 2 5 5
Electrical engineering			7 2 3 0 0	Participated (voluntary subject)			

Special project

- - - - -

Headmaster/headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for work studies, school workshop practice and field practice. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.
C = C-language, a foreign language first studied at upper secondary school.
NT = Course with scientific and technical bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required.
A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full list of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 8, or 9.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr. mth. date, identity digits)

Four-year Technology Line, three-year course of studies

Branch

Course of studies (complete, reduced or augmented)

Study route code

4 4 7 | | | 0 | | |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Building Branch			
Swedish language			6 5 6 0 S	Building techniques			7 0 3 0 0
Literature and general languages			6 5 6 0 L	Design			7 0 6 0 0
English			6 0 3 0 0	Electro-engineering Branch			7 2 2 8 0
French B			6 1 3 0 B	Electricity			
German B			6 6 8 0 B	Electronics			7 2 2 4 0
C				Mechanical engineering			7 5 5 6 0
History			0 2 3 0 0	Chemical Engineering Branch			3 4 2 4 0
Religious knowledge			0 6 7 0 0	Physical chemistry			3 4 6 0 0
Civics			5 4 8 0 0	Organic chemistry			7 2 3 0 0
Mathematics NT			3 5 5 0 N	Electrical engineering			
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Technology			8 8 7 5 0	Physical education			9 0 2 0 0
Mechanical engineering Branch			7 5 3 5 0	School workshop practice and field practice			8 8 6 6 0
Design							
Production			7 8 6 8 0	Work studies			5 0 2 5 5
Electrical engineering			7 2 3 0 0	Participated (voluntary subject):			

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of School.

Chap- 9, Section 31. the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey.¹

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for work studies, school workshop practice and field practice. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Study route code

The first live digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the four-year Technology Line:

44729-0100 Building Branch
44719-0101 Electro-engineering Branch
44749-0108 Chemical Engineering Branch
44709-0102 Mechanical Engineering Branch

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first live digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

NT = Course with scientific and technical bias.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname	First name(s)	Nat. reg. no. (yr, mth, date, identity digit)
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Four-year Technology Line, Building Branch

Variant	Course of studies (complete, reduced or augmented)	Study route code
		4 5 7 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S	Building techniques			7 0 3 0 0
Literature and general languages			6 5 6 0 L	Design			7 0 6 0 0
English			6 0 3 0 0	Production			7 0 7 2 0
French B			6 1 3 0 B	Housing and town planning			7 0 4 9 0
German B			6 6 8 0 B	Construction			7 0 0 2 0
C				Heating, ventilation and plumbing			7 3 8 1 0
History			0 2 3 0 0	Electrical engineering			7 2 3 0 0
Religious knowledge			0 6 7 0 0				
Ergonomics			5 0 3 6 0				
Civics			5 4 8 0 0				
Mathematics NT			3 5 5 0 N				
Physics			3 1 3 0 0	Physical education			9 0 2 0 0
Chemistry			3 4 4 0 0	School workshop practice and field practice			8 8 6 6 0
Business economics			2 0 2 4 0	Work studies			5 0 2 5 5
Technology			8 8 7 5 0	Participated (voluntary subject):			

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972-374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for work studies, school workshop practice and field practice. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971-424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974.442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

NT = Course with scientific and technical bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the Building Branch of the four-year Technology Line:

45730-0116 Construction variant
45740-0115 Building variant

The study route code is also to include a final digit showing the student's course of studies, as per the following:

0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.

2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

0 = Subject forms part of a complete course of studies.

2 = Subject forms part of the student's course of studies but no mark has been awarded or no "participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)

6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

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Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper-
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digits)

Four-year Technology Line, Materials Science Branch

Course of studies (complete, reduced or augmented)

Study route code

4 | 5 | 7 | 0 | 0 | 0 | 2 | 0 | 8 |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Design			7 5 3 5 0
Swedish language			6 5 6 0 S	Production			7 8 6 8 0
Literature and general languages			6 5 6 0 L	Electrical engineering			7 2 3 0 0
English			6 0 3 0 0	Metallic materials			7 6 5 4 0
French B			6 1 3 0 B	Non-metallic materials			7 6 2 8 0
German B			6 6 8 0 B	Measuring techniques			7 5 3 3 0
History			0 2 3 0 0	Statistics			5 6 7 0 0
Religious knowledge			0 6 7 0 0	Special project			8 8 6 7 0
Ergonomics			5 0 3 6 0				
Civics			5 4 8 0 0				
Mathematics NT			3 5 5 0 N				
Physics			3 1 3 0 0	Physical education			9 0 2 0 0
Chemistry			3 4 4 0 0	School workshop practice and field practice			8 8 6 6 0
Business economics			2 0 2 4 0	Work studies			5 0 2 5 5
Technology			8 8 7 5 0	Participated (voluntary subject):			

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for work studies, school workshop practice and field practice. Instead a note is made to the effect that the student has "Participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.
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Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The study route code is also to include a final digit showing the student's course of studies, as per the following:

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8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full list of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

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Thus the final digit of the subject code must be 0, 2, 8, or 9.

Name of school

LEAVING CERTIFICATE awarded on completion of upper secondary schooling ☐

Municipality

Date

awarded for a complete course of studies in the form of municipal or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr., mth., date, identity digits)

Four-year Technology Line, Mechanical Engineering Branch

Course of studies (complete, reduced or augmented)

Study route code

4 | 5 | 7 | 0 | 0 | 0 | 1 | 0 | 0 |

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish				Technology			8 8 7 5 0
Swedish language			6 5 6 0 S	Design			7 5 3 5 0
Literature and general languages			6 5 6 0 L	Energy			7 3 1 8 0
English			6 0 3 0 0	Production			7 8 6 8 0
French B			6 1 3 0 B	Automatic control			7 7 6 3 0
German B			6 6 8 0 B	Electrical engineering			7 2 3 0 0
C				Special project, Ma			8 8 6 7 0
History			0 2 3 0 0				
Religious knowledge			0 6 7 0 0				
Ergonomics			5 0 3 6 0				
Civics			5 4 8 0 0				
Mathematics NT			3 5 5 0 N	Physical education			9 0 2 0 0
Physics			3 1 3 0 0	School workshop practice and field practice			8 8 6 6 0
Chemistry			3 4 4 0 0	Work studies			5 0 2 5 5
Business economics			2 0 2 4 0	Participated (voluntary subject)			

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

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Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

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No marks are awarded for work studies, school workshop practice and field practice. Instead a note is made to the effect that the student has "Participated".

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Municipal and State Adult Education Ordinance Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

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Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

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2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "participated" lacking for a subject or activity for which this entry has to be made.

8 = augmented course of studies.

9 = reduced course of studies.

Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full list of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

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6 = Student excused or exempted from the subject or activity.

8 = Voluntary subject.

9 = Subject or activity omitted because of reduced course of studies.

Thus the final digit of the subject code must be 0, 2, 8, or 9.

Name of school

LEAVING CERTIFICATE

awarded on completion of upper
secondary schooling ☐

Municipality

Date

awarded for a complete course of
studies in the form of municipal
or state adult education ☐

Surname

First name(s)

Nat. reg. no. (yr, mth, date, identity digit)

Four-year Technology Line, Electro-engineering Branch

Variant

Course of studies (complete, reduced or augmented)

Study route code

4 5 7 1 0 0

Subjects	Marks	Grade	Subject code	Subjects	Marks	Grade	Subject code
Swedish							
Swedish language			6 5 6 0 S	Automatic control ..			7 7 6 3 0
Literature and general languages			6 5 6 0 L	Telecommunications			7 2 7 3 0
English			6 0 3 0 0	System engineering			7 2 6 7 0
French B			6 1 3 0 B	Electrical machinery			7 2 2 9 0
German B			6 6 8 0 B	Electrical installation			7 2 1 3 0
.....C				Electrical power			7 2 2 6 0
History			9 2 3 0 0				
Religious knowledge			0 6 7 0 0				
Ergonomics			5 0 3 6 0				
Civics			5 4 8 0 0				
Mathematics NT			3 5 5 0 N				
Physics			3 1 3 0 0				
Chemistry			3 4 4 0 0				
Business economics			2 0 2 4 0				
Technology			8 8 7 5 0	Physical education			8 8 6 6 0
Electricity			7 2 2 8 0	School workshop practice and field practice			9 0 2 0 0
Mechanical engineering			7 5 5 6 0	Work studies			5 0 2 5 5
Electronics			7 2 2 4 0	Participated (voluntary subject):			

Special project

Headmaster/Headmistress

Instructions overleaf

INSTRUCTIONS

Put a cross beside the appropriate type of school.

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

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Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

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"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are awarded for **work studies, school workshop practice and field practice**. Instead a note is made to the effect that the student has "participated".

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Municipal and State Adult Education Ordinance, Section 44 (SFS 1971:424 with amendments)

A leaving certificate is to be issued to a student concluding a course of studies equalling a complete course of upper secondary school studies or grade 3 of the four-year Technology Line of upper secondary school. Instruction in music, the history of art and music, drawing, handicraft, drama, physical education or a comparable subject shall not be required, however, for the issue of a leaving certificate, except insofar as is provided in regulations issued by the National Board of Education. A leaving certificate may also be issued on completion of studies corresponding to the four-year Technology Line of upper secondary school less B-language, C-language, history, religious knowledge and civics. A mark for physical education shall not be required for the issue of such a leaving certificate except insofar as is provided in regulations issued by the National Board of Education. (SFS 1974:442).

Abbreviations

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.

NT = Course with scientific and technical bias.

Study route code

The first five digits of the study route code are taken from the Swedish Educational Nomenclature (SUN).

The first nine digits of the study route code indicate the student's study route (line, branch and variant).

The following study route codes occur in the Electro-engineering Branch of the four-year Technology Line:

45710-0118 Electro-power variant

45710-0127 Telecommunications variant

The study route code is also to include a final digit showing the student's course of Studies, as per the following:

- 0 = complete course of studies, with marks awarded for all compulsory subjects and with "Participated" entered for subjects or activities for which this entry is required. A student exempted from a subject or activity but satisfying the requirements in all other subjects is to be included in this group.
 - 2 = complete course of studies, but with no mark awarded for one or more compulsory subjects or with "Participated" lacking for a subject or activity for which this entry has to be made.
 - 8 = augmented course of studies.
 - 9 = reduced course of studies.
- Thus the final digit of the study route code must be 0, 2, 8 or 9.

Subject code

The first five digits of the subject code constitute the code for the subject.

Full lists of subject codes are obtainable at all upper secondary schools.

Additional subjects entered on blank lines must be accompanied by their subject codes. Each code must be accompanied by a sixth digit for the course of studies, as per the following.

- 0 = Subject forms part of a complete course of studies.
 - 2 = Subject forms part of the student's course of studies but no mark has been awarded or no "Participated" entry has been made, as the case may be. (Chap. 9, Section 31, Subsection 4, the Education Ordinance.)
 - 6 = Student excused or exempted from the subject or activity.
 - 8 = Voluntary subject.
 - 9 = Subject or activity omitted because of reduced course of studies.
- Thus the final digit of the subject code must be 0, 2, 6, 8 or 9.

Specialized Course

In addition to its lines of study, upper secondary school also includes a large number of specialized courses, most of which qualify the student for a particular occupation. These courses can vary in duration from a week or so to several years. The majority follow on from compulsory school, while others demand additional previous schooling. Specialized courses following on from at least two years' upper secondary schooling are termed advanced specialized courses.

The majority of courses are directly geared to lines of upper secondary school, but there are also a number of free standing courses. The following is a small selection of courses following on from compulsory school and qualifying students for particular occupations.

Ladies' hairdresser	3 years
Decorator	2 years
Caretaker	2 years
Photographic staff	2 years
Gentlemen's hairdresser	3 years
Typist	1 term
Furrier	2 years
Optician	2 years
Chimney sweep	2 years
Welder	1 term
Upholsterer	2 years
Dental nurse	2 years

Many of these and other courses can be followed up at upper secondary school by means of extension courses of various kinds or advanced specialized courses. Some of the specialized courses - in the care sector, for example - take the form of phased or sandwich studies in which vocational activity. Most specialized courses also include some form of practical training.

Name of action

Center

Municipality

Surname, First name (s)	Nat. reg. no. (yr, mth, date, identity digits)
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	Duration (as per curriculum)
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☐ Specialized course ☐ Advanced specialized course

Name of course (as per curriculum)

Branch, variant

Course of studies (complete, reduced or augmented)

[illegible]

Headmaster/Headmistress

Intermittent, Intense Stressors

INSTRUCTIONS

Chap. 9, Section 31, the Education Ordinance (SFS 1972:374 with amendments)

"Marks are to be awarded for all subjects unless otherwise provided in Subsection three or four of this Section or in the time schedule.

Marks for subjects are to be awarded on a five-point scale, except where the Government allows otherwise for a particular study route. The maximum award is 5.

Marks are not to be awarded for subjects referred to in Chap. 8, Section 5.

A student not satisfying the criteria of acceptable vocational knowledge in a subject concerned with vocational knowledge, in the narrow sense of that term, is not to be awarded a mark for the subject. The same shall apply to other subjects in cases where, owing to prolonged absence, neglect, handicap or some other special circumstance, a student has failed to achieve the knowledge and skill which the instruction is intended to convey."

The Government Ordinance of 25th January 1979 provides that awards for **practical subjects** in nursing and care education are to be indicated by the terms Passed or Failed, as the case may be.

Chap. 8, Section 5, the Education Ordinance (SFS 1971:235)

"Upper secondary schools may provide instruction in instrumental music, solo singing, choral singing, drawing, drama and physical education over and above the regular course of studies..."

No marks are to be awarded for the following subjects etc. Instead a note is to be made to the effect that the student has "participated".

Working life orientation.

Subjects as per Chap. 8, Section 5, the Education Ordinance; see above.

A subject or subjects governed by provisions in the time schedule concerning the specialized course or advanced specialized course.

If a student has attended instruction in a subject but, for a reason referred to in Chap. 9, Section 31, Subsection 4 of the Education Ordinance, has not been awarded a mark for the same, a cross is to be entered in the marks column to show that the subject is included in the course of studies. A similar entry is to be made for subjects where "Participated" should otherwise be entered.

Abbreviations etc.

(M) = Reduced course of studies. The subject is included in the course of studies, but the student has been exempted from taking it.

(U) = Augmented course of studies. The subject is not included in the course of studies, but the student has been allowed to take it.

Mathematics Te = Course for two-year Technology Line.

B = B-language, the second foreign language taken by the student at compulsory school or its equivalent.

C = C-language, a foreign language first studied at upper secondary school.