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THE
CAMBODIAN PLAN
FOR
**COOPERATIVE PARTICIPANT
TRAINING**

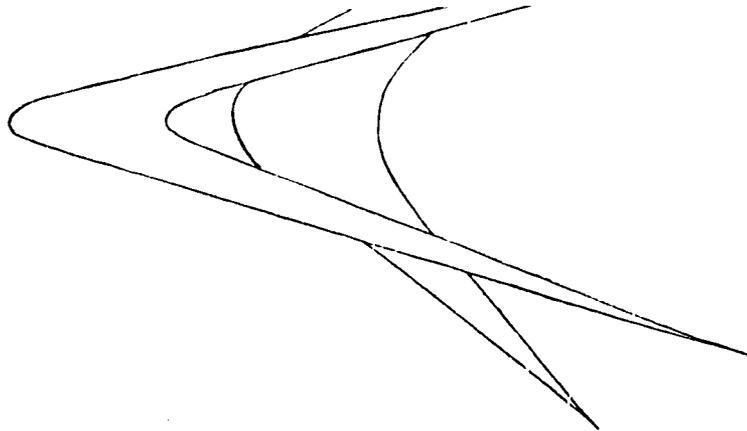
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CAMBODIAN PLAN
FOR
COOPERATIVE PARTICIPANT
TRAINING

Prepared by:

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Report Submitted:
January 1, 1963.

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ACKNOWLEDGEMENTS

The writers of this report wish to express their sincere appreciation to the many persons who have contributed to the development of this proposal.

Special thanks are due to the US/AID mission staff in Cambodia for their cooperation and willingness to provide assistance whenever it was needed; to Mr. Earald Barton and his wife Myrna for their many hours of sacrifice in arranging interviews, transportation to industries and schools and handling on-the-scene arrangements to make our stay in Cambodia an enjoyable experience; to Mr. Thomas Liston for his willingness to escort us on many trips and arrange details for gathering data for the report; to Mr. John Khou for his many hours spent as our guide and interpreter on trips throughout the country; and to Mr. Iv Chay Iv Yan and his staff for their cooperation in providing background material for the report and arranging many of the details of our trip.

We are most grateful to the US/AID Office for selecting us to participate in this experimental program and hope that this will prove beneficial to all those concerned with the subject.

C. Thomas Dean

Clifford G. Dobson

CHAPTER I.

THE DEVELOPMENT OF THE CAMBODIAN PLAN FOR COOPERATIVE PARTICIPANT TRAINING.

PROGRAM OBJECTIVES

The objective of the Cambodian Plan for Cooperative Training is to assist Cambodia to become professionally self-sufficient in the area of Technical-Vocational Education through a coordinated participant training program.

INITIAL PROPOSAL

The initial proposal as initiated by the Technical Industrial Advisor for USOM/Cambodia consists of:

- A. Agreements or contracts with Long Beach State College and Los Angeles State College wherein these institutions will accept the responsibility of sponsoring the training of a complete faculty for the National School of Arts and Trades.
- B. The method of operation to be:
 1. USAID/Cambodia will select participants to be sent to the sponsoring school for education to the B.A. degree level as qualified teachers in industrial and academic subjects.
 2. USAID/Cambodia, through project financing, will provide the funds for the education, cost of living, travel, and other costs connected with the coordinated participant program.
 3. USAID/Cambodia, through project financing, will provide the funds for the travel and other costs of one consultant from each sponsoring college to visit Cambodia for the purpose of making a project appraisal of the training needs and in cooperation with the USAID Chief Project Technician and with the assistance of Counterpart Cambodian Educators make an analysis of the training required to develop a qualified faculty.

4. After the return of the consultants to their home campus the colleges will study the problems connected with accepting the type of responsibility indicated in "A" above; among which will be:
 - (a) Accept the responsibility of arranging for the professional and subject matter training of the participants assigned to their school. This to include the arrangement for any "outside" training that may be required to prepare the future teacher for his future teaching responsibilities. Examples of this would be: (1) Enrollment in a Local Trade School for a higher level of skill training than that provided by the sponsoring school.
 - (b) Enrollment in special training courses offered by the various industries. These non-credit courses may be a definite prerequisite in the training for work in Cambodia.
 - (c) Enrollment in other schools offering courses of value to a particular participant or groups of participants.
 - (d) In cooperation with AID/Washington Training Office, the sponsoring colleges will sponsor the vacation time activities, attendance at conventions and other phases of the participants' training program in accordance with the objectives of the over-all program.
- C. Without commitment to an obligation to assume the responsibilities outlined in "A" and "B" above, the Long Beach State College and the Los Angeles State College, where twenty Cambodian students are already in training, will release responsible industrial teacher training supervisors to visit Cambodia during the school vacation time in 1962. The purpose of this visit to be to assist in making an on-the-project analysis of the training required for the twenty Cambodians now studying industrial education in the represented schools.

The foregoing plan will provide a coordinated program well supervised by those responsible for the professional education of the participants. While the teaching positions discussed were concerned with the trade type courses, the program will also include the education of the academic teachers for the school.

The programs, as planned, will provide training for 101 participants. This group to consist of seven administrators, fifty academic teachers and forty-four technical instructors. Selected individuals from each category will be given training in the techniques of teacher education so that they will be competent to staff a small teacher training program.

THE SURVEY TEAM

In July 1962 contracts were issued to Dr. C. Thomas Dean and Dr. Clifford Dobson by the Agency for International Development. The contracts called for the following services:

- A. Make an on-the-project investigation to determine the nature, scope and character of the training being and to be conducted at the school.
- B. Develop descriptions, or adopt existing standard descriptions, for the faculty positions required to conduct the training program at the school.
- C. Develop training specifications, or adopt existing standard training specifications, for each of the faculty positions at the school.
- D. Based upon the above training specifications, develop general and special curricula for the effective pre-service and in-service training required for each faculty position at the school.
- E. Submit in person the written report to the Education Branch, Technical Advisory Staff, Far East Bureau, A.I.D., Washington, D.C., and engage as needed in conferences thereon for a period of up to three days. The report shall be submitted as soon as practicable after the contractors return to the United States and in no event later than November 15, 1962.

In accordance with the contract the contractors surveyed Cambodian industries, the need for technical training and the nature of the teacher education as prescribed by US/AID. This document is a

report of the team's findings and recommendations.

When this plan becomes operative:

- A. The contracting colleges agree to accept the responsibility of sponsoring the education of the future faculty for the National School of Arts and Trades. This is to be accomplished by planning individual study programs for each teaching position. The pattern of courses assigned to a student may involve the use of other educational institutions or special arrangements for work experience in industry in order to provide the training-in-depth required to develop the special skills and knowledges required by the future teacher in his work in Cambodia.
- B. The contracting colleges agree to detail personnel to continue the survey of the teaching requirements of the National School of Arts and Trades in Cambodia in order to insure that all study programs are effectively oriented and that the subject matter is germane to the preparation of the student teacher for his future duties.
- C. The plan will train 100 or more competent teachers more economically than a university contract team working in Cambodia. There will be no language problems after the Cambodians complete the first year of study. The foreign teachers now employed at the school together with the lack of precedent or legal status of a teacher training program in Cambodia mitigates against the success of a university contract team working in Cambodia.
- D. It will be possible to have the students educated in institutions having adequate modern equipment, excellent libraries, tradition in professional education, and faculties composed of highly trained specialists in every pertinent subject area. All will take place in an atmosphere or climate of professional philosophy so important in the education of a teacher.
- E. It will be possible to train a faculty member to the degree of competence considered essential to his future position, a condition that is nearly impossible to control when the training takes place in the home country.

This report covers only the findings and recommendations of the survey team and does not necessarily imply an endorsement by the colleges they represent. In general there has been acceptance but specific details covered in future contracts between A.I.D. and the

colleges would require some additional negotiations.

It should be emphasized that the success of a participant training program depends largely on adequate supervision, administration and financial support of services over and beyond those normally provided by the college.

COMPARATIVE PROGRAMS

The Cambodian Plan for Cooperative Participant Training is unique in that it is the first attempt made to train an entire school faculty away from the institution or out of the participating country. The participating colleges will develop a specific training program for each teaching position in the National School of Arts and Trades in Phnom Penh. Each program will be the result of an on-the-spot analysis made by the survey team.

The participants are selected from graduates of the National School of Arts and Trades in Cambodia. They are carefully screened, selected and oriented for the training before they are sent to the United States.

The overall objective is to make Cambodia professionally self-sufficient in their technical school needs. At the present time the school faculty is made up to a large degree by foreign instructors. The curricula in the participating schools are designed to produce a well educated Cambodian faculty in both professional and technical subject matter. A second objective of the program is to give additional professional training to selected members from the group to provide a nucleus for teacher training in technical education in Cambodia.

Prior to this experimental project the training programs have been primarily of the team type such as that provided by the University of Ohio team in Cambodia and the University of Southern Illinois team in Saigon.

The Ohio team operates the school in the field while training replacements for the team. This functions in a situation where a new school is being started and no other faculty is available.

The Southern Illinois team is a group of advisors with no definite teaching responsibility as this is done by local teachers. The primary function of the advisor is to provide in-service training of the local teachers.

CHAPTER II.

CAMBODIA

Cambodia is a country in the Indochina area of Southeast Asia having an area of 67,500 square miles and an estimated population of 5,000,000 people. This consists of Khmers and minorities of Vietnamese, Chinese, Chams, Europeans and a few primitive tribes in the northeast part of the country. The national language is Khmer with French used primarily for business and educational purposes. The principal city is the Capital, Phnom Penh with a population of 550,000.

Cambodia is a limited constitutional monarchy with an elective national assembly. It is located in the rich Mekong River Valley and is bounded by Thailand, Laos, South Vietnam and the Gulf of Siam. It has fertile soil, undeveloped mineral resources, and tropical forests all of which could provide for economical security. It is a country of small landowners. The chief farm crop is rice, but sugar cane, cotton, corn, tobacco, rubber and spices are also grown.

Cambodia's five year development plan for 1960-1964 calls for an annual increase in the national income equal to 3% per capita and a total expenditure of 8 billion riels, of which 69% is to be financed from Cambodian revenues and 31% from foreign aid. Of the total expenditures, 40% is allocated to the development of production, 28% to the development of communications and transportation facilities, 25% to health, education and welfare programs and 7% to administrative expenses. Industrialization in the early stages is to be based on the processing of local products. Industrial development is dependent on

the increase of electrical power which well could be developed by means of the Lower Mekong Basin hydroelectric project.

The economy of the country has been increasing as each year shows a growth in both exports and imports. Manufacturing industries include rubber processing plants, alcohol distilleries and home cottage handicrafts. Most of the industrial expansion has been a direct result of foreign aid with resources made available from both the Communist Countries and the Western Allies.

Cambodia should continue to develop both economically and industrially and should be provided as much assistance as is feasible under existing conditions. The training of technical personnel for the Cambodian National School of Arts and Trades will have a real impact on this growth. At the present time the first compliment of the Cambodian faculty for this school is being trained at Long Beach State College and Los Angeles State College. This faculty should have far reaching effect on the industrial situation within Cambodia in that they will be equipped to train students needed at this stage of the country's industrial development. In addition to this they will provide leadership for the future industrial development.

EDUCATION IN CAMBODIA

About 40 percent of the population is estimated to be literate. In 1959 there were 3592 primary schools with 536,762 pupils; 31 secondary schools with 15,429 pupils; 17 technical schools with 858 pupils; 28 teacher training centers with 2007 students; and 696 students in colleges. Higher education is centered in Phnom Penh where there are faculties of law, medicine, and letters, the Royal

School of Administration, the National School of Commerce and a Buddhist university. The government's five year development plan calls for an increased interest in and an expansion of education at all levels.

The existing system of education is founded upon the French Lycee but will have to be modified if it is to meet the changing need in Cambodia. The changing economic structure is making it mandatory that the system be changed in order to provide an education for the many students with different abilities. Changes in Cambodian government, industry and life itself accentuate the demand for change.

Cambodia can do nothing but grow in its industrial potential. More and more industry will be constructed and the socio-economic level will be raised. One of the dynamic factors in this growth will be the National School of Arts and Trades in Phnom Penh. This is a large institution designed to handle 1600 students with a faculty of approximately 100. This school will provide the primary source for technical personnel to operate the new industries throughout the country. Without these people the technology of the country will be slow in advancing and will have a serious effect on the country's economy.

THE NATIONAL SCHOOL OF ARTS AND TRADES

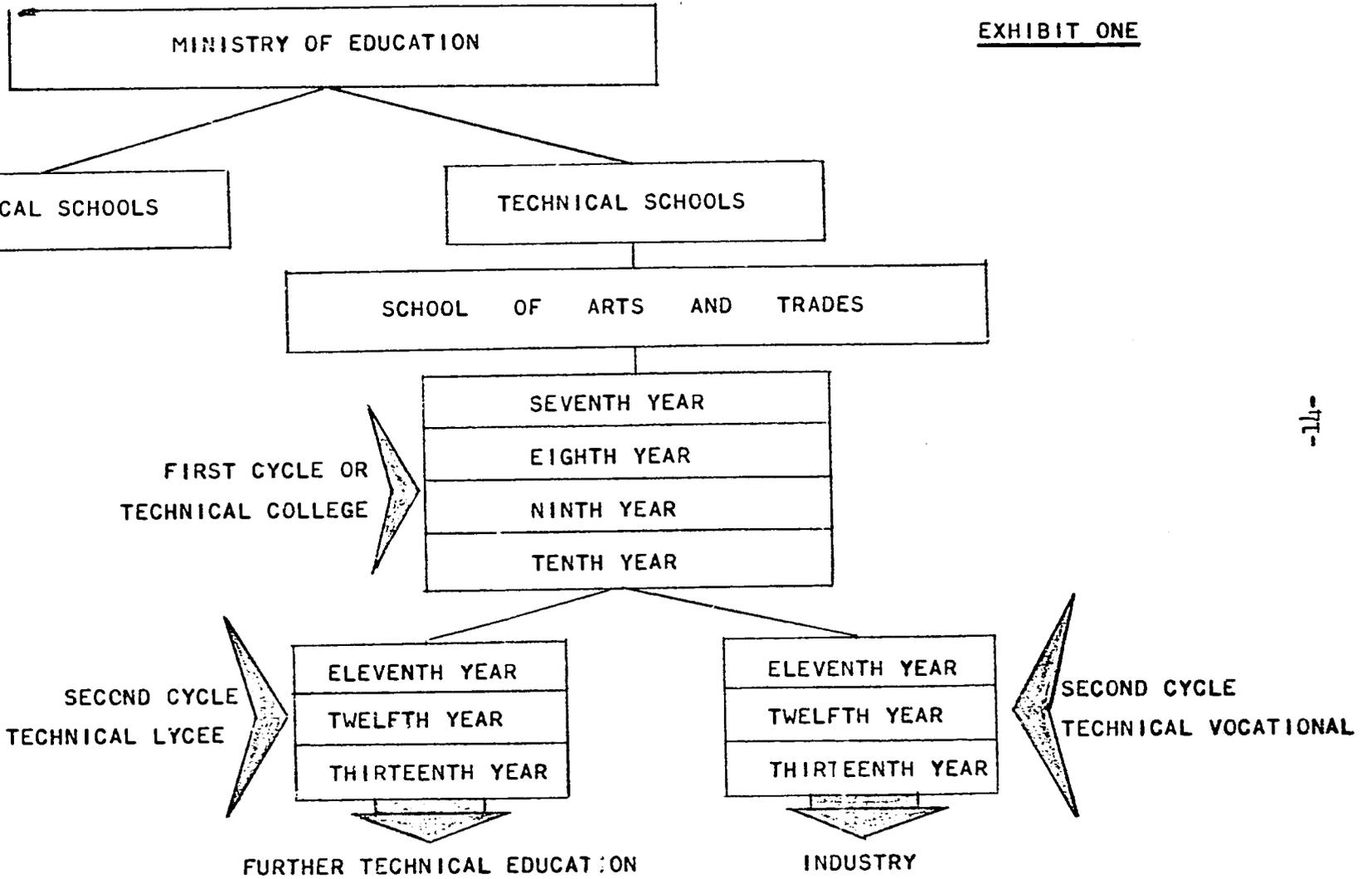
The National School of Arts and Trades is a secondary technical school designed to meet the shortage in Cambodia for a supply of skilled manpower. It is expected that this shortage will become more severe with the rapid industrial growth of the nation

during the next decade. At the present time the technical employees in industry such as the government operated power plants, repair and maintenance shops and private industries are in a large part non-Cambodian.

The teaching staff of the school is largely French. As the school grows, a larger number of teachers will be needed. The goal of the participant training program is to provide a Cambodian faculty that will contribute to a self-sustaining national system of technical-vocational education. It is estimated that more than 100 teachers will be needed to meet this need. The school also includes an apprenticeship center and is placed under the control of the Ministry of National Education. The training program includes two cycles: (See Exhibit One)

- A. Four Year First Cycle (Technical College) including 7th, 8th, 9th and 10th industrial grades. A secondary Diploma of First Cycle confirms the completion of this cycle.
- B. Three Year Second Cycle including two different sections:
 1. A "Technician" section with an examination of "Brevet Supérieur de Technicien" at the end of the third year of study.
 2. A "Normal" section leading to the examination of the Baccalaureate (Technical Mathematics area), First and Second (Senior High and Freshman College), and preparing students for Engineer Higher School.

The educational program at the National School of Arts and Trades is based upon a foundation of 5 or 6 years of elementary education. Qualifying examinations are given at several stages of the curriculum. The scores made on the tests determine whether



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or not the individual will be allowed to continue his education and also the curriculum he can pursue. If the student achieves a recommending score he can pursue the academic classical curriculum, if he does not achieve the recommending score he must pursue the technical program. It is also possible for a student to transfer from one segment of the program to the other but this must be taken care of administratively at the level of the Minister of Education.

Fifteen hundred students applied for admission at the start of the 1961-1962 school year. One hundred and forty were admitted. There is about a fifty percent disqualification rate by the end of the twelfth year.

In addition to these two options the school operates a three-year study program called an apprenticeship center. It appears that graduates of this program can best be described as working at the operator level while graduates of the terminal trade program work at the craftsman level.

THE SCHOOL CURRICULUM

During the four years of the first cycle program, six academic subjects and seven technical subjects are offered. The subjects and the total hours in class during the first cycle are shown below:

<u>Subject</u>	<u>Total Hours</u>
Cambodian - - - - -	468
French - - - - -	936
History, Geography and Civics - -	324
English - - - - -	288
Mathematics - - - - -	648
Science - - - - -	288
Design - - - - -	648
Related Technical - - - - -	288

<u>Subject</u>	<u>Total Hours</u>
Wood Shop - - - - -	216
Sheet Metal - - - - -	216
Forge - - - - -	216
Electricity - - - - -	216
Bench Metalwork - - - - -	<u>298</u>
Total Hours-	5040

The subjects and total class hours for the second cycle technical-vocational program are listed below:

<u>Subject</u>	<u>Total Hours</u>
Cambodian - - - - -	108
English - - - - -	540
Economic Geography - - - - -	108
Chemistry - - - - -	216
Physics - - - - -	216
Mathematics and Mechanics - - - - -	180
Shop laboratory classes in the area of specialization such as auto mechanics, electricity, metals, machine shop, radio and wood - - - - -	<u>2500</u>
Total Hours (approximately)-	3900

The subjects and total class hours required for the second cycle technical lycee program are listed below:

<u>Subject</u>	<u>Total Hours</u>
Cambodian - - - - -	108
English - - - - -	540
Mathematics - - - - -	396
Chemistry - - - - -	468
French - - - - -	324
Physics - - - - -	468
Economic Geography - - - - -	72
Civil Government - - - - -	108
Architectural Design - - - - -	540
Machine Shop - - - - -	180
Electric Shop - - - - -	180
Auto Shop - - - - -	180
Radio Shop - - - - -	180

<u>Subject</u>	<u>Total Hours</u>
General Technology Prof. - - - - -	36
Special Technology Prof. - - - - -	<u>36</u>
Total Hours - -	3816

FACILITIES

The curriculum of the school will be supported with a new plant designed to accommodate approximately 1600 students. Academic classrooms will accommodate 50 students in a class. Shop laboratories are designed to accommodate 25 students in a class. The following list shows the distribution of classrooms and laboratories:

Standard classrooms - - - - -	21
Large lecture halls - - - - -	2
Science laboratories - - - - -	5
Drafting rooms - - - - -	7
Shops (first cycle) - - - - -	9
Shops(second cycle) - - - - -	13
Library - - - - -	1
Motion picture theater - - - - -	1

In addition to the classrooms and laboratories, a warehouse, administration building and director's house will be provided.

SELECTION OF STUDENTS

Most students are admitted to the school on the basis of competitive examinations. Students older than 17 are not admitted by examination at the seventh grade level.

CHAPTER III.

THE TEACHER EDUCATION PROGRAM

This chapter describes the teacher education program. The main objective of this program is to provide the school with a working staff of professional educators who can teach effectively in their subject matter areas of specialization. It is proposed that some of the group who have special abilities and interest would be selected for further training to meet a second objective of providing specialists in the fields of supervision, administration and teacher education.

A number of essential factors incorporated into the development of this proposed program are listed below:

1. The depth of subject matter preparation must be sufficient to provide teachers who are competent to teach at a vocational or trade school level. In addition, they must have sufficient depth of subject matter preparation to not only meet the needs of future programs as Cambodia develops industrially, but to bring industrial "know how" and leadership to this development.
2. The depth of professional preparation in the art, science, and technology of teaching must match the depth of subject matter preparation.
3. Emphasis will be given to developing teachers who have a concept of professional service as a teacher; one that includes an appreciation of the teacher's role in education

and society. The development of a successful educational program depends upon teachers who have an understanding of and appreciation for these concepts.

4. The proposal includes meeting the requirements for a bachelor of arts degree. Students must develop an appreciation of a professional degree as evidence of an organized and rigorous program of study.
5. The teacher has a responsibility for all phases of the instructional program including curriculum and lesson planning, the development of instructional materials, the arrangement and organization of the instructional areas, guidance, and follow-up of students.
6. The value of constant self-evaluation and the need of in-service training. The need for these teachers to promote and offer leadership in professional activities that will keep them up-to-date in their profession.

The problem of assisting Cambodia to become professionally self-sufficient in the area of technical-vocational education will be solved through special study programs balanced with field work experience in administrative, supervision, testing and teacher training. The candidates for these non-degree special study courses will be selected by the RKG from the present staff working in Cambodia and from undergraduates studying in the USA who have demonstrated unusual aptitude and competence. The courses in these special study programs will be selected on the basis of the students future duties.

This teacher education program is designed to prepare teachers who will have the following characteristics. (See Exhibit Two)

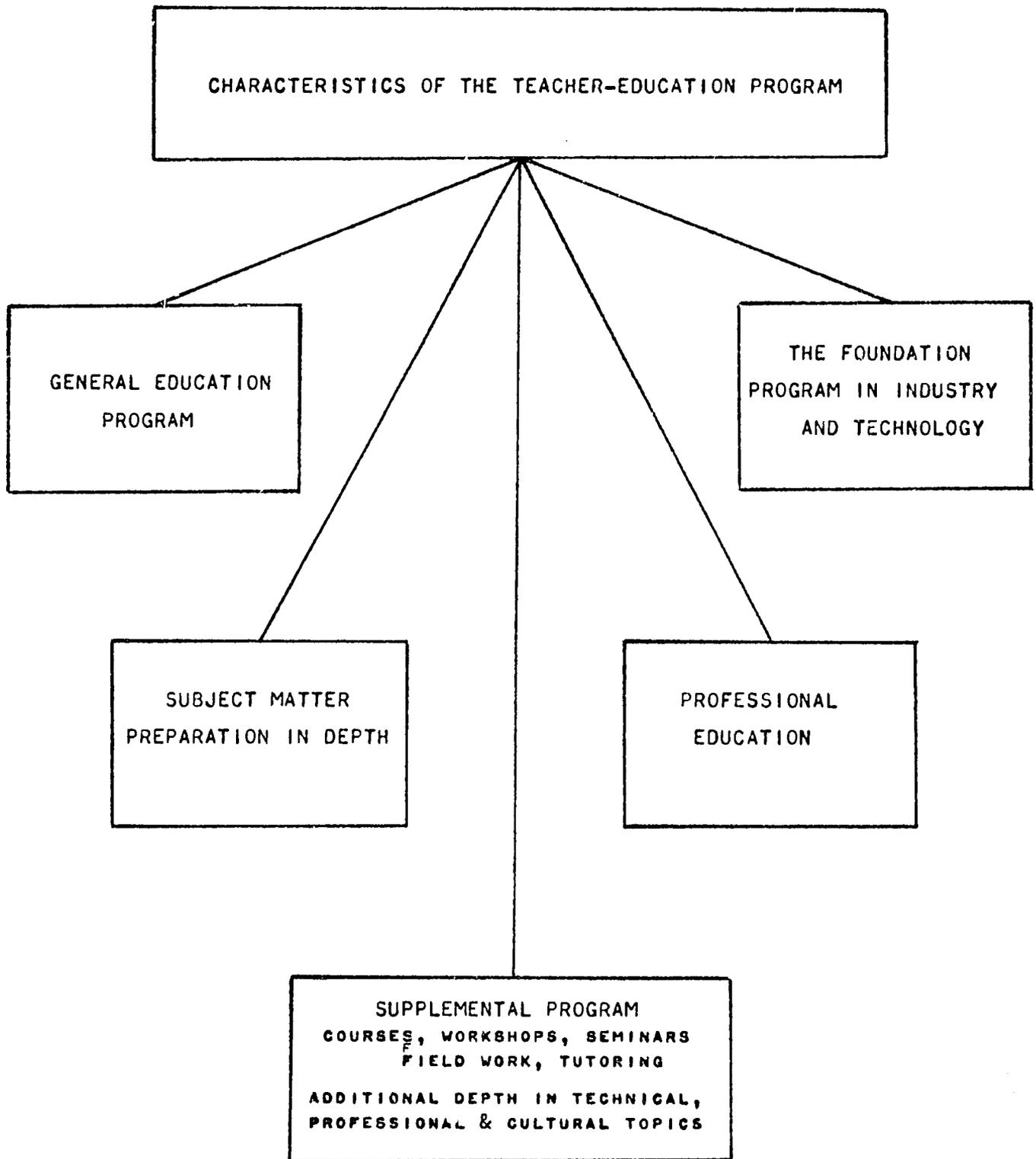


EXHIBIT TWO

1. A broad base of general or liberal education.
2. A foundation program in industry and technology covering a basic knowledge of industry and technology and the role they play in a society in terms of the processes, materials, techniques, machines, organization and concepts of production.
3. A high level of competence in the teacher's area of subject matter specialization.
4. A working knowledge of the profession of teaching including the theories, principles, techniques and methods of education.
5. Supplemental courses, workshops, seminars, conferences and tutoring to provide for individual and group needs as they are determined.

The student would, in the program, meet the requirement for a baccalaureate degree at the State College he attends.

THE GENERAL EDUCATION PROGRAM

The general education program is designed to enable the student to communicate more effectively; to understand better the basic principles of the natural world about him; to have a better grasp of the significance of man's endeavor to understand himself and his relationship to others, to his past, and to his physical environment; to appreciate beauty in many forms; and to recognize the values, ideas, the assumptions that give meaning to his existence.

Each undergraduate student will be required to study a general education program that is substantially the same program required of all students who qualify for a B.A. degree. In addition to these

minimal requirements the students will through special assignments and, where possible in regular courses, study the history, geography, economics and social life of Asia.

It consists of a 45 unit pattern of specially designed courses distributed among selected subject fields. The pattern provides for some choice within each of the required areas. Five of the forty-five units may be selected from among any of the general education program courses.

Variations and modifications of the required programs will be made on an as-needed basis for each individual student.

The 45 unit general education program is usually distributed as follows:

Social Sciences	9 units
Natural Sciences	9 units
Humanities	9 units
Communicative Arts	6 units
Personal and Social Fitness	7 units
Special Courses needed by individual students	<u>5 units</u>
Total	45 units

The following paragraphs provide brief descriptions of the required and elective courses in the general education program.

Social Sciences:

Man and Society

Sociological approach to broad problems that confront modern man. Through use of selected concepts in sociology, an attempt is made to familiarize the student with the social structure and social processes of our national life and of society in general with the aim of encouraging and achieving intellectual clarity in assessing social issues and trends.

Human Geography

Area studies of the origins, dispersals, and contemporary

distributions of the peoples of the world and their settlement characteristics with some emphasis on Asian peoples.

Economics for the Citizen

Economic organization of free society, consideration of the form and economic function of such socio-economic units as the household, business enterprise, and government. Primary attention to the interdependence of these economic units on the level of economic activity and the allocation of resources.

Cultural Anthropology

Exploration of the concept of culture. Problems of definition. The evolution of cultural systems. Application of the concept of culture to the analysis of selected problems.

United States History

Selected issues, problems, and ideas as focused around selected leaders from Alexander Hamilton and Thomas Jefferson to Herbert Hoover and Franklin Roosevelt.

Government and American Society

The American political system; emphasis on its social setting and the problems of a democratic political system in action.

Natural Sciences

Principles of Biology

Selected topics in the biological sciences as applied to the understanding of basic and unifying principles; emphasis on biology of individual organisms.

Principles of Physical Science

Study of basic concepts of motion, energy, and matter and their relationship to man's environment. Emphasis on methods of scientific inquiry. Ability to use simple algebraic equations is assumed.

Principles of Biology

Emphasis on biology of groups of organisms, heredity, evolution, and ecology. Lecture three hours; laboratory three hours, alternate weeks.

Principles of Physical Science

Beginning course in college chemistry or physics may be accepted as the prerequisite if approved by the instructor. Application of previously learned concepts to the study of earth, earth processes and earth history, and to some concepts of the universe.

General Chemistry

The first half of a basic course in the fundamental laws and theories of chemistry. Lecture three hours; recitation one hour; laboratory three hours.

General Chemistry and Qualitative Analysis

Continuation of General Chemistry. Qualitative analysis of the metallic elements. Lecture three hours; laboratory six hours.

Physics

Presentation of physics without the use of calculus. Includes mechanics, heat, sound and light. Emphasis on the application of physical principles to natural phenomena. Not accepted for physical science majors; required for biological science majors and recommended for students in behavioral sciences. Lecture, three hours; laboratory three hours.

Physics

Continuation of Physics. Includes electricity, magnetism, atomic, and nuclear physics. Lecture three hours; laboratory three hours.

General Physics

Prerequisites: One year high school physics or consent of instructor. Detailed and fundamental treatment of mechanics using calculus. Intended primarily for physical science and engineering majors. Lecture three hours; laboratory three hours.

General Physics

Continuation of Physics. Includes heat, light, and sound. Lecture three hours; laboratory three hours.

Humanities

Art, Music and Dance

Approaches to appreciating, understanding and creating art, dance, and music.

Philosophy

Major issues of philosophical interest with special attention to the principal intellectual techniques employed by philosophers, both critical and speculative.

Literature

First course in literature, designed to give the student experience of the general range, power, and human relevance of literary works, and knowledge of their special forms and techniques.

Communication Arts

Written and Oral Communication

Year course in communication skills of speaking, writing, reading, and listening; emphasis on critical thinking; application of communication skills to practical problems of human affairs.

Written Expression

Language as a tool of thought and communication; the relations between thinking, writing, reading, and speaking; practice in reading and collecting information, and in organizing and presenting ideas in writing.

Oral Expression

Fundamentals of oral expression. Experience in organization, reasoning, delivery and criticism through practical application in individual and group situations.

Personal and Social Fitness

Human Behavior

Acquaints student with the history of man's persistent efforts to understand his own behavior, encouraging an appreciation of the scientific method and a readiness to apply it to problems of human behavior.

Personal Health

Beneficial and detrimental factors of environment and their effect upon the mind and body; ways in which these environmental factors may be utilized for health and safety.

Fundamentals of Physical Education

Instruction in selected sports and activities chosen according to individual students interest, needs and ability.

Activities include:

Archery
Badminton
Basketball-Volleyball
Beginning Modern Dance
Beginning Swimming
Body Dynamics
Fencing
Field Sports for Women
Gymnastics and Tumbling
Handball
Intermediate Modern Dance
Intermediate Swimming
Soccer-Speedball
Social Dance
Softball
Square and Round Dance
Tennis
Touch Football
Wrestling

THE FOUNDATION PROGRAM IN INDUSTRY AND TECHNOLOGY

The foundation program in industry and technology is designed to provide each teacher, regardless of his area of subject matter specialization, with a basic knowledge of industry and technology in terms of industrial processes, materials, techniques, machines, organization and concepts of production. The emphasis of this program is on knowledge and understanding rather than the development of industrial skills. However, the program involves extensive laboratory experiences. Students will have actual experience in working with the tools, machines, materials, and industrial processes.

This program is essential if the teachers are to understand the role of industry in a society; and need for occupational training; the role that their students can play in such a society and the relationship between their subject matter area of specialization and the objective of the school in which they will teach.

Descriptions of courses in the foundation program in industry and technology are listed below.

The automotive curriculum area: a study of the internal combustion engine and its application to transportation and power; techniques, tools and equipment used in maintenance and servicing; and the safe operation of transportation equipment.

The design and drafting curriculum area: a study of industrial and engineering; design and drafting as a means of industrial communication between the designer and producer. Techniques, equipment and materials used in technical illustration, machine, architectural, electronic and aircraft drafting; and reproduction methods.

The electronics curriculum area: a study of the principles, theories, and concepts of electronics and their industrial application in communications, power, and controls.

The graphic arts curriculum area: a study of graphic arts as used in communications in our culture. The design and production of graphic materials through the processes of letter-press printing, lithography, photography, silk-screen printing and binding.

The metal curriculum area: a study of the metal manufacturing industry, the materials used, the design and production of products, and the processes used in forging, casting, machining, forming, welding, and heat treating.

The wood curriculum area: a study of wood and synthetic materials, the ways in which these materials are used in our society, design, construction, manufacturing and finishing techniques which make use of machines for cutting, shaping, forming, and finishing.

Industrial studies: advanced study of growth, development, and organization of industry; problems of industry, personnel and consumer with significance to the social order.

THE PROFESSIONAL EDUCATION PROGRAM

The professional education program provides for a foundation program and a specialized program related to the students teaching specialization.

Students who enter this program would be expected to meet all of the standards (if appropriate) required of candidates for a teaching credential.

ADMISSION TO TEACHER EDUCATION

The Cambodian students will not be candidates for U. S. teaching credentials so certain modifications of the regular college requirements will be made in the study requirements leading to qualifications for student teaching or internship, with the objective of developing a standard to be used in Cambodia when the pre-service teacher education program is initiated at the National School of Arts and Trades at some future date.

The Cambodian students will complete the following tests for admission to teacher education:

1. Technical or academic subject matter proficiency
2. Writing proficiency test
3. Speech test
4. Fundamentals test
5. Health examination, including chest X-ray
6. Personality tests
7. College aptitude test. (This is included with entrance examination.)

Standards for the Cambodian students will be based on the following criteria:

1. Scholarship. A satisfactory grade point average is expected of all credential candidates. Grades in all education courses must be C or better.
2. Academic and Cultural Preparation. A broad, well-planned program of general education with an appropriate major and/or minor(s) is required. Competency is required in all subjects and skills commonly taught in the public school.
3. Personal Fitness. The student must demonstrate personal qualifications in keeping with professional standards. Attention will be directed to general appearance, poise, dress, vitality, temperament, integrity, and general social attitude. Evaluation of personal qualifications may require rating by instructors in the industrial arts departments of the participating schools and possibly an interview by a selected committee.

The foundation program of approximately fourteen units covers the historical, philosophical and sociological principles of education; the psychological foundations of education; the principles of curriculum and evaluation.

The specialized program related to the student's teaching specialization will vary according to his subject matter area. Approximately twelve to fourteen units of work are required. The specialized program includes: Teaching methods in the field of specialization; audio visual instruction methods; the development and production of instructional materials, counseling and guidance techniques, and practice teaching or a teaching internship program.

The following paragraphs describe the courses in the professional education program:

Psychological and Sociological Foundations of Education

Child and adolescent growth and development, educational psychology, mental hygiene, and educational sociology, as these are foundational to the development of effective elementary and secondary school teachers.

Secondary Education: Principle, Curriculum, and Evaluation

Principles and philosophy of secondary education in the United States; organization, curriculum, evaluation, and teaching practices for secondary schools. Observation-participation in junior and senior high schools.

Methods and Materials

A professional course intended for prospective secondary school teachers includes consideration of objectives, methods, materials, and problems involved in teaching in the particular field; observation in junior and senior high school. Each candidate must complete appropriate methods course in his major and minor.

Tests, Measurements and Evaluation

The essential principles of measurement and evaluation in the elementary and secondary schools; the determination, meaning and use of the most fundamental statistical concepts as they apply to problems dealing with measurement and evaluation; the construction, interpretation and use of standardized and, especially, teacher-made tests.

Audio-Visual Instruction - Methods and Techniques

Methods and techniques of using audio-visual materials and equipment; variety, scope, sources, selection, teaching techniques, and evaluation of materials. Training in operation of equipment. One Hour laboratory per week required.

Industrial Arts Curriculum

Philosophy and development of industrial arts education; its present place and function in the total program of elementary and secondary education. Development and use of instructional materials for different industrial arts areas; preparation and use of tests, instruction sheets, courses of instruction, and shop planning.

Fundamentals of Counseling and Guidance

General orientation to those factors involved in better understanding of individual students; basic principles and practices of the pupil personnel program.

Construction of Teaching Aids

Construction of teaching aids for shop class use, such as cutaway models and mockups, assignment boards, checking devices for course coverage, blowup models, electrical identification panels, procedure boards, and material specimens.

Special Problems in Industrial Education

Approval of the department head. Independent study of industrial education problems designed to provide upper division students an opportunity for additional experience of an advanced nature in an area of special interest.

SUBJECT MATTER PREPARATION

This section describes the nature and extent of subject matter preparation recommended for the Cambodian students in this program. Subject matter preparation is usually in the form of an organized curriculum called a major. Each of these teachers must have a high level of competence in their major.

ACADEMIC SUBJECT MATTER PREPARATION

A general description is offered for subject matter majors in the academic fields since these established majors provide sufficient flexibility to meet the needs of Cambodian students in this program. The number of specific units varies with the specific departments. Exhibit Three shows the pattern of a typical academic subject matter major.

The general pattern for subject matter majors in academic subjects is:

1. Lower division requirement: Twelve to eighteen units as specified by the department.
2. Upper division requirement: Approximately twenty-four to thirty-six units as specified by the department.

The following academic major patterns are offered as typical examples: (See Exhibit III)

Major in Geography

Lower Division

Human Geography - - - - -	3 units
Physical Geography - - - - -	3 units
Elements of Meteorology - - - - -	3 units
Air Photography and Map Interpretation - - - - -	3 units
Basic Courses in Anthropology, Economics, or Sociology - - - - -	3 units
Basic Courses in Botany, Geology, or Physics - - - - -	3-5 units

EXHIBIT THREE

THE PATTERN FOR A TYPICAL ACADEMIC SUBJECT MATTER MAJOR (MATHEMATICS)

LOWER DIVISION
REQUIRED

ANALYTIC GEOMETRY

CALCULUS

PHYSICS

CHEMISTRY

34 UNITS

UPPER DIVISION
REQUIRED

INTERMEDIATE ANALYSIS

DIFFERENTIAL EQUATIONS

ADVANCED CALCULUS

12 UNITS

UPPER DIVISION
SUGGESTED ELECTIVES

HIGHER GEOMETRY

ALGEBRAIC EQUATIONS

DIFFERENTIAL EQUATIONS

VECTOR ANALYSIS

12 UNITS

Upper Division

- Group 1: Cartography - - - - - 3 units
Field Geography - - - - - 3 units
- Group 2: Physical Geography: select from
the following - - - - - 3 units
Geomorphology (3)
Climatology (3)
- Group 3: Systematic Human Geography: select
from the following - - - - - 3 units
World Resources (3)
Geography of Settlement (3)
Geography of Urban Areas (3)
Political Geography (3)
- Group 4: Regional Geography: select from
the following - - - - - 9 units
Geography of United States
and Canada (3)
Geography of Europe (3)
Geography of Asia (3)
Geography of Japan (3)
Geography of the Soviet Union (3)
Geography of Middle American (3)
Geography of South America (3)
Geography of the Pacific Area (3)
Geography of California (3)
- Group 5: Related courses in the natural and social
sciences as approved by adviser. (3-5 units
of a foreign language are recommended
- - 9 units
Additional course from group 2, 3, or 4 - - 3 units

51 - 53 units

Major in History

Lower Division

- Man in Civilization - - - - - 6 units
American Civilization - - - - - 6 units

Upper Division

(Courses must be selected in consultation with a
history adviser.)

Twenty-four units selected as follows:

From any one group 1 through 5	- - - - -	6 units
From group 6	- - - - -	6 units
From any one group 9, 10, or 11	- - - - -	6 units
Six units in any other one group (1 through 11)	- - - - -	6 units
Group (1) Ancient		
Group (2) Medieval		
Group (3) Europe: Renaissance to present		
Group (4) European		
Group (5) England and British Empire		
Group (6) American: Founding of colonies to present		
Group (7) American		
Group (8) American West		
Group (9) Russia		
Group (10) Latin America		
Group (11) Far East		
History Proseminar	- - - - -	3 units
Social Sciences and other related fields	- - - - -	9 units

Major in Language Arts

Lower Division

No requirements beyond General Education courses:
Language Arts 150AB and English 250.

Upper Division

Modern English Grammar	- - - - -	3 units
Communication of Ideas	- - - - -	3 units
Newspaper and Magazine Analysis	- - - - -	3 units
Contemporary Dramatic Arts	- - - - -	3 units
Group Discussion	- - - - -	3 units
Persuasive Speaking	- - - - -	3 units
Oral Interpretation	- - - - -	3 units
Speech Analysis and Evaluation	- - - - -	3 units
Ideas in America	- - - - -	3 units
Contemporary World Literature	- - - - -	3 units

Select six units from either of the following options - 6 units
Option 1 - American Literature
Option 2 - British Literature

Select one course from the following - - - - - 3 units
Interpreting Shakespeare (3)
Modern Continental Drama (3)
Literature and the Fine Arts, B.C. (3)
Literature and the Fine Arts, A.D. (3)
Literature and Human Values (3)
News Writing (3)
High School Journalism (3)
Forensics (3)

Introduction to Speech Correction (3)
 Great Speakers: European or
 Great Speakers: American (3)

Graduate (Fifth Year)
 Popular Literature - - - - - 3 units
 Language and Culture - - " - - - - - 3 units

45 units

Major in Mathematics

Lower Division

Analytic Geometry and Calculus I - - - - - 4 units
 Analytic Geometry and Calculus II - - - - - 4 units
 Analytic Geometry and Calculus III - - - - - 4 units
 General Physics I - - - - - 4 units
 General Physics II - - - - - 4 units
 General Physics III - - - - - 4 units

Upper Division

Intermediate Analysis - - - - - 3 units
 Differential Equations - - - - - 3 units
 Advanced Calculus I - - - - - 3 units
 Advanced Calculus II - - - - - 3 units
 Select from the following - - - - - 3 units
 Introduction to Modern Geometry (3)
 Higher Geometry (3)
 Select from the following - - - - - 3 units
 Theory of Algebraic Equations (3)
 Linear Algebra and Matrices (3)
 Modern Algebra (3)
 Elective courses in upper division mathematics selected
 with the approval of an adviser- - - - - 6 units

48 units

Major in Physics

Lower Division

General Physics I, II, III - - - - - 12 units
 General Chemistry - - - - - 5 units
 General Chemistry and Qualitative Analysis - - - - - 5 units
 Physical Geology - - - - - 4 units
 Analytic Geometry & Calculus I, II, III - - - - - 12 units

Upper Division

General Physics IV - Modern Physics	- - - - -	4 units
Differential Equations	- - - - -	3 units
Basic Electronics	- - - - -	4 units
Introduction to Theoretical Physics	- - - - -	6 units
Electricity and Magnetism	- - - - -	6 units
Heat and Thermodynamics	- - - - -	3 units
Introduction to Quantum Mechanics	- - - - -	3 units
Experimental Physics Laboratory	- - - - -	3 units
Additional units in physics selected with approval of adviser	- - - - -	9 units
(Physics electives may include course work in mathematics or any science area with approval of adviser.)		

79 units

Teaching Major in Physics

Lower Division

(Requirements are same as for Bachelor of Science Major) - - - - - -38 units

Upper Division

Introduction to Astrophysics	- - - - -	3 units
General Physics IV - Modern Physics	- - - - -	4 units
Additional units in physics selected with approval of an adviser	- - - - -	16 units
(Physics electives may include course work in mathematics or any science area with approval of adviser.)		

61 units

Major in Chemistry

Lower Division

General Chemistry	- - - - -	5 units
General Chemistry and Qualitative Analysis	- - - - -	5 units
Quantitative Analysis I	- - - - -	3 units
Quantitative Analysis II	- - - - -	3 units
General Physics I	- - - - -	4 units
General Physics II	- - - - -	4 units
General Physics III	- - - - -	4 units
Analytic Geometry and Calculus I	- - - - -	4 units
Analytic Geometry and Calculus II	- - - - -	4 units
Analytic Geometry and Calculus III	- - - - -	4 units
Differential Equations	- - - - -	3 units
Elementary German I	- - - - -	4 units
Elementary German II	- - - - -	4 units

Select one of the following: - - - - - 4-5 units
 General Botany (5)
 Physical Geology (4)
 General Microbiology (5)
 General Physics IV, Modern Physics (4)
 General Zoology (5)

Upper Division

Organic Chemistry - - - - - 6 units
 Organic Chemistry Laboratory - - - - - 4 units
 Physical Chemistry - - - - - 6 units
 Physical Chemistry Laboratory - - - - - 2 units
 Advanced Inorganic Chemistry - - - - - 3 units
 Select from the following: - - - - - 4 units
 Glassblowing (1)
 Work Study Assignments and Reports(1-2)
 Intermediate Physical Chemistry (3)
 Chemical Thermodynamics (3)
 Chemical Kinetics (3)
 Advanced Organic Chemistry (3)
 Organic Analysis (3)
 Polymer Chemistry (3)
 Advanced Synthetic Methods (3)
 Biochemistry (4-4)
 Industrial Chemistry (3)
 Colloid Chemistry (3)
 Advanced Analytical Chemistry (3)
 Instrumental Methods of Analysis (4)
 Independent Study (1-3)

82 - 84 units

TECHNICAL SUBJECT MATTER MAJORS

The technical subject matter majors are designed to give these teachers a high level of competence in a selected specialization.

The foundation program in industry and technology is a base upon which specializations are built. The technical majors are specially designed to meet the needs of Cambodian teachers and are divided into three phases.

Phase I: The foundation program in industry and technology.

Phase II: A concentration in one of the general areas of Phase I.

Phase III: A depth of preparation in one (or more) of the sub-areas of Phase II.

Exhibits Four through Fifteen are examples of technical subject matter majors with selected specializations.

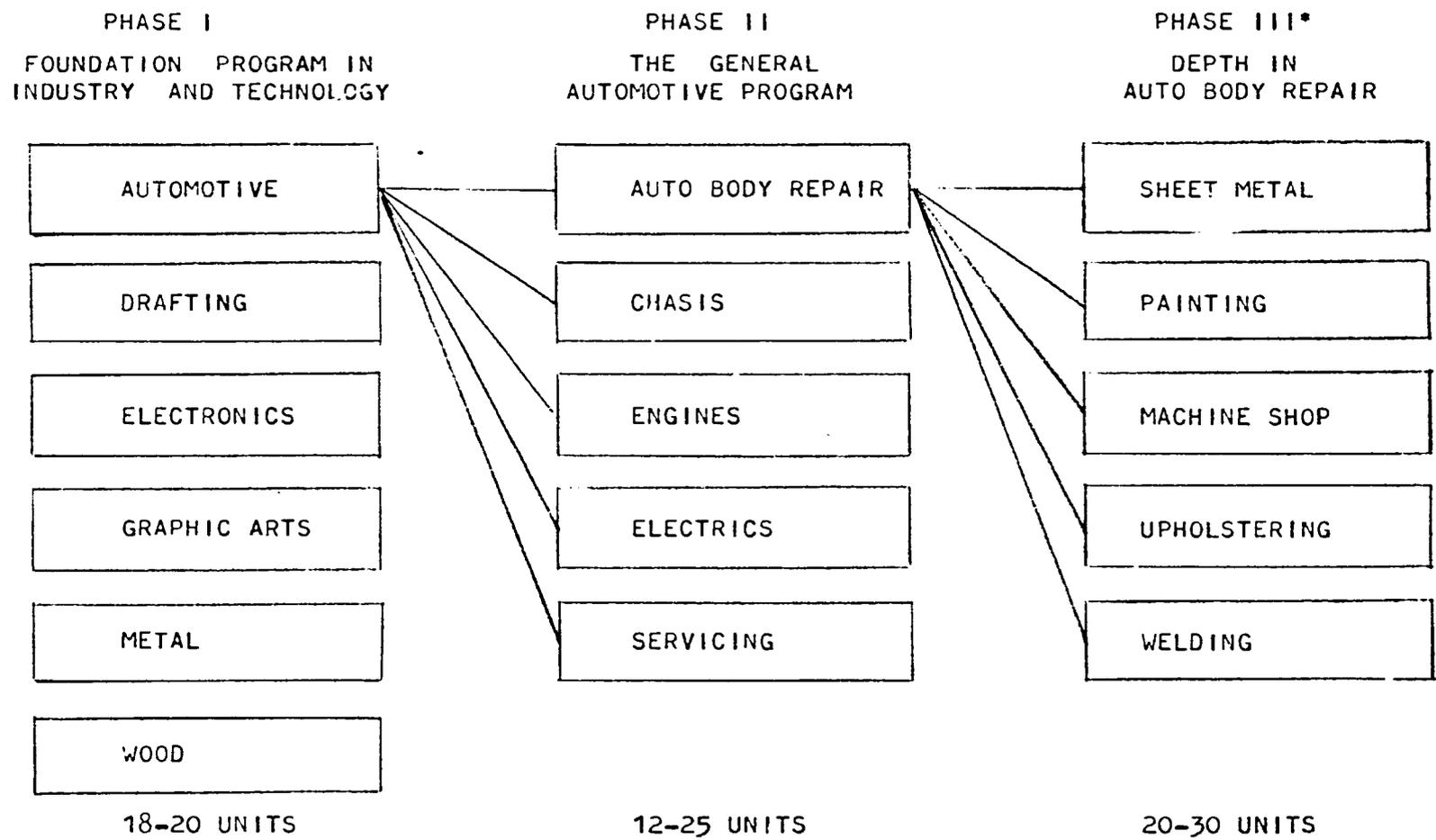
Whereas the academic majors take the foundation program in industry and technology with emphasis on a general background of knowledge and understanding of industry; the technical majors will place additional emphasis on acquiring a background of basic technical skills. If necessary, additional laboratory time will be assigned as a means of meeting this objective.

A unique feature of this plan is to send some students to specialized institutions, to provide the depth of sub-matter concentration required in Phase III.

The Southern California area has eighteen junior colleges within commuting distance of Los Angeles and Long Beach State Colleges. Private trade schools and industries will be used in areas where the public schools do not have strong programs.

EXHIBIT FOUR

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN AUTO BODY REPAIR



-10-

* WHEN NECESSARY SUPPLEMENTAL TRAINING WILL BE ARRANGED IN OTHER INSTITUTIONS

EXHIBIT FIVE

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN AUTOMOTIVE MECHANICS

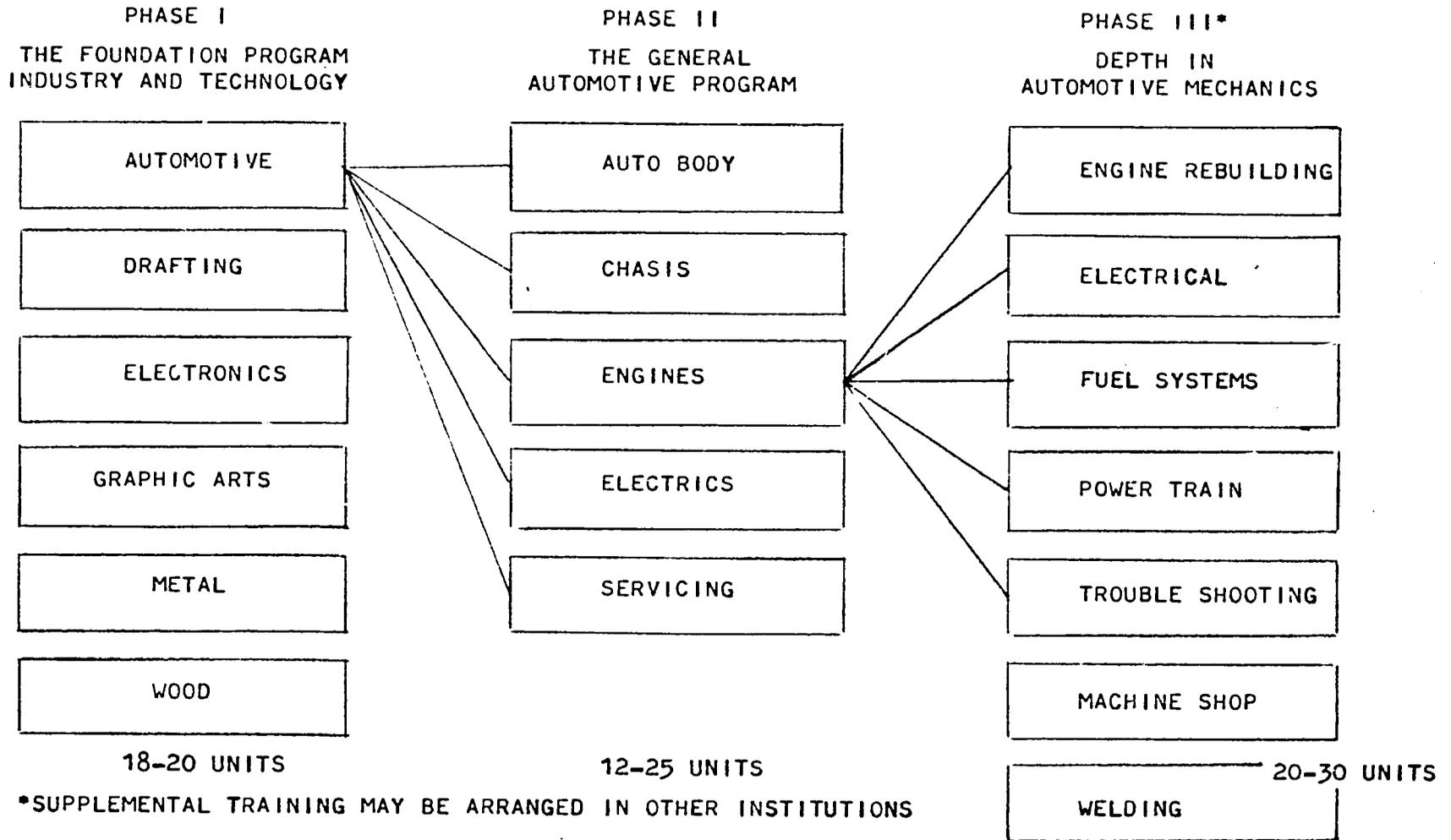
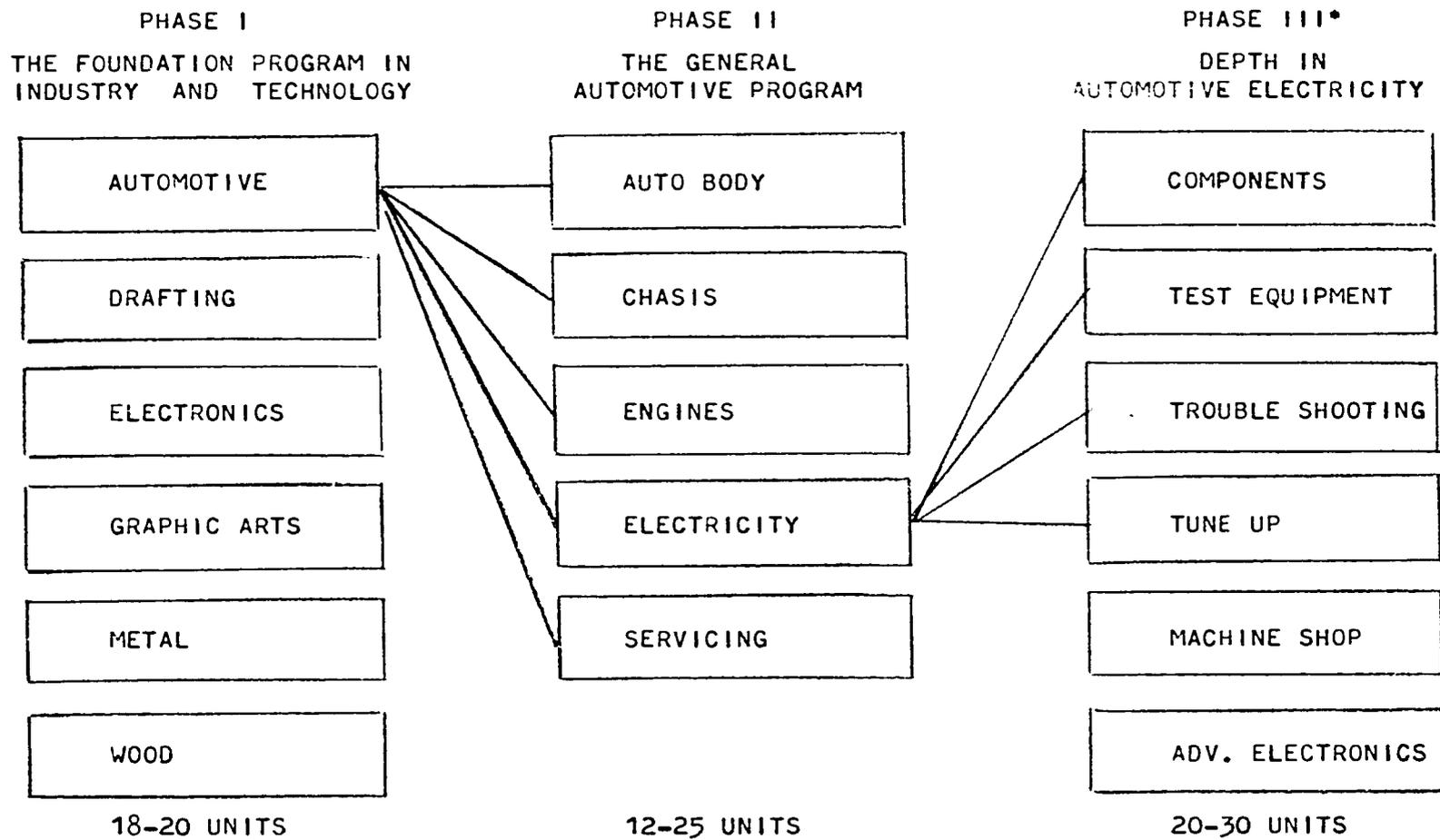


EXHIBIT SIX

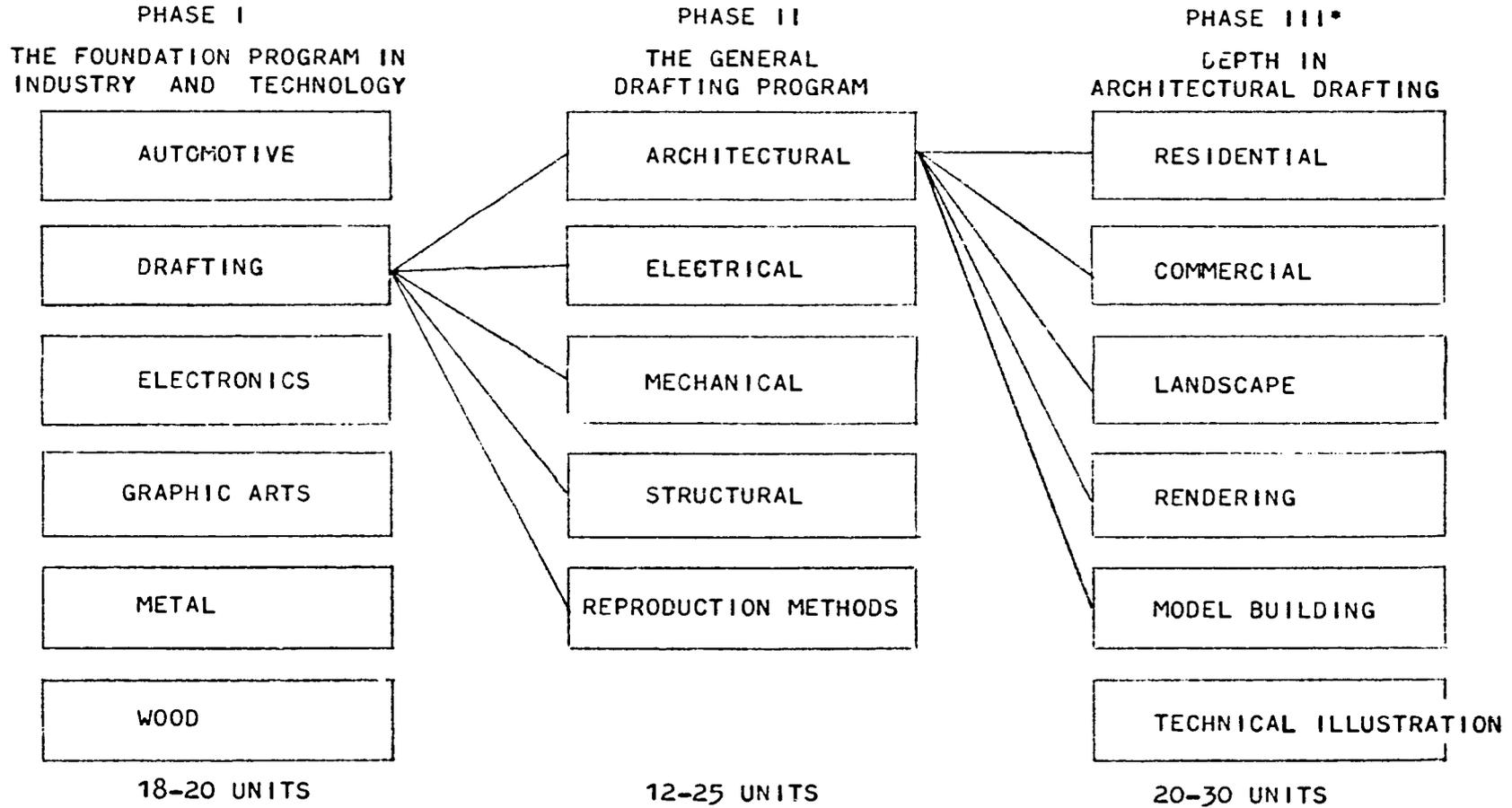
THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN AUTOMOTIVE ELECTRICITY



* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

EXHIBIT SEVEN

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN DRAFTING

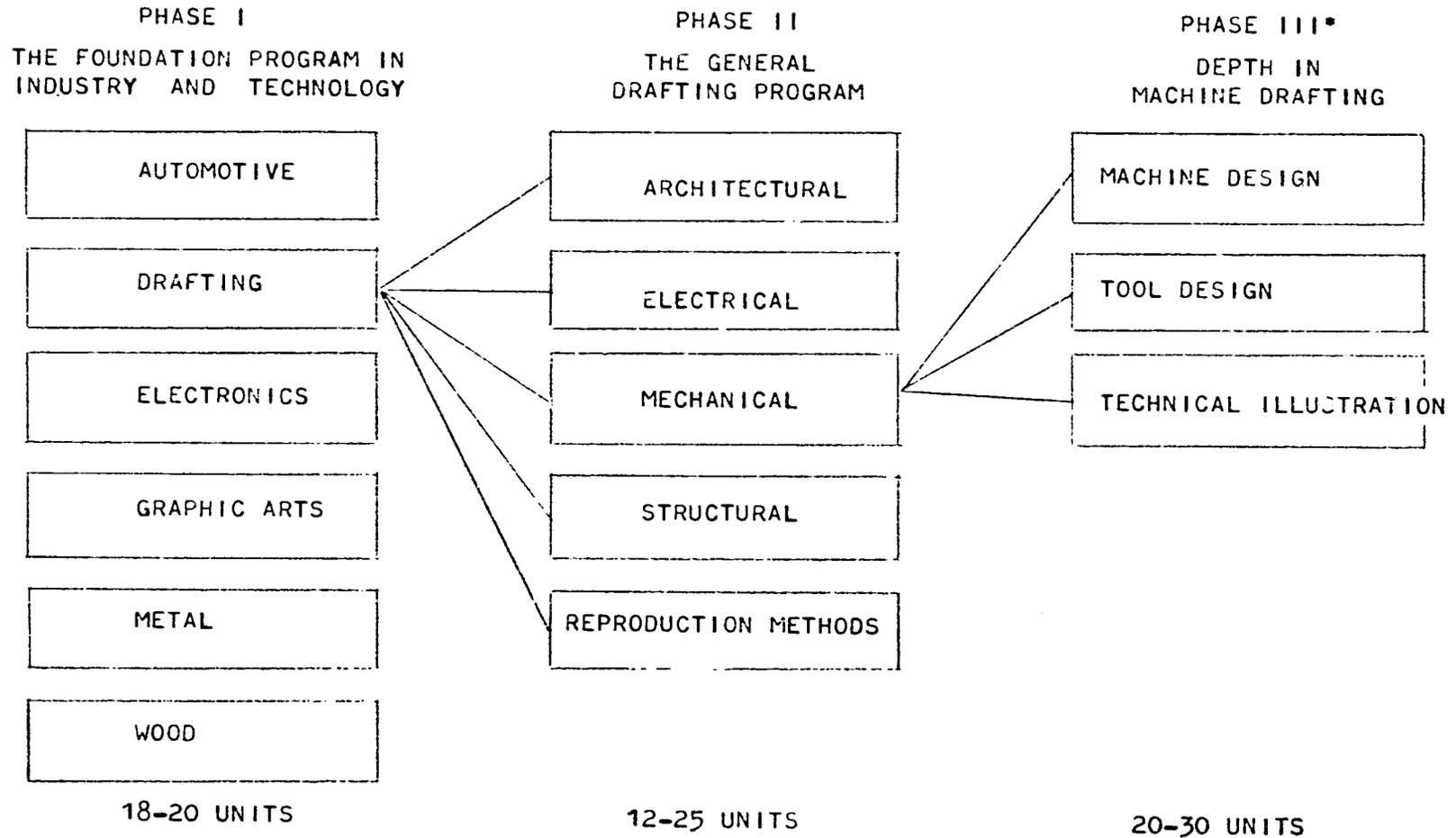


* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

BEST DOCUMENT AVAILABLE

EXHIBIT EIGHT

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN MACHINE DRAFTING

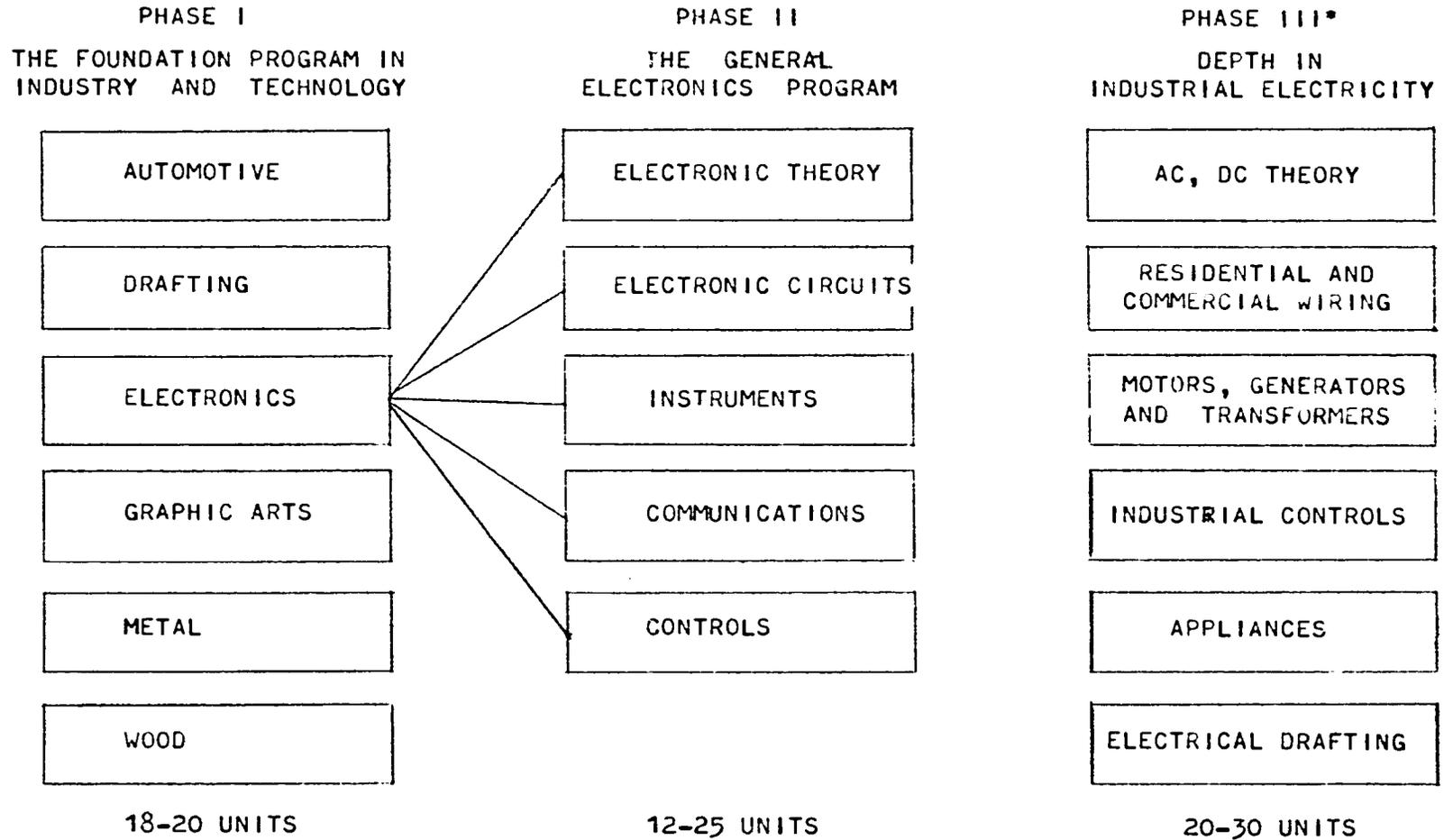


* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

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EXHIBIT NINE

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN INDUSTRIAL ELECTRICITY

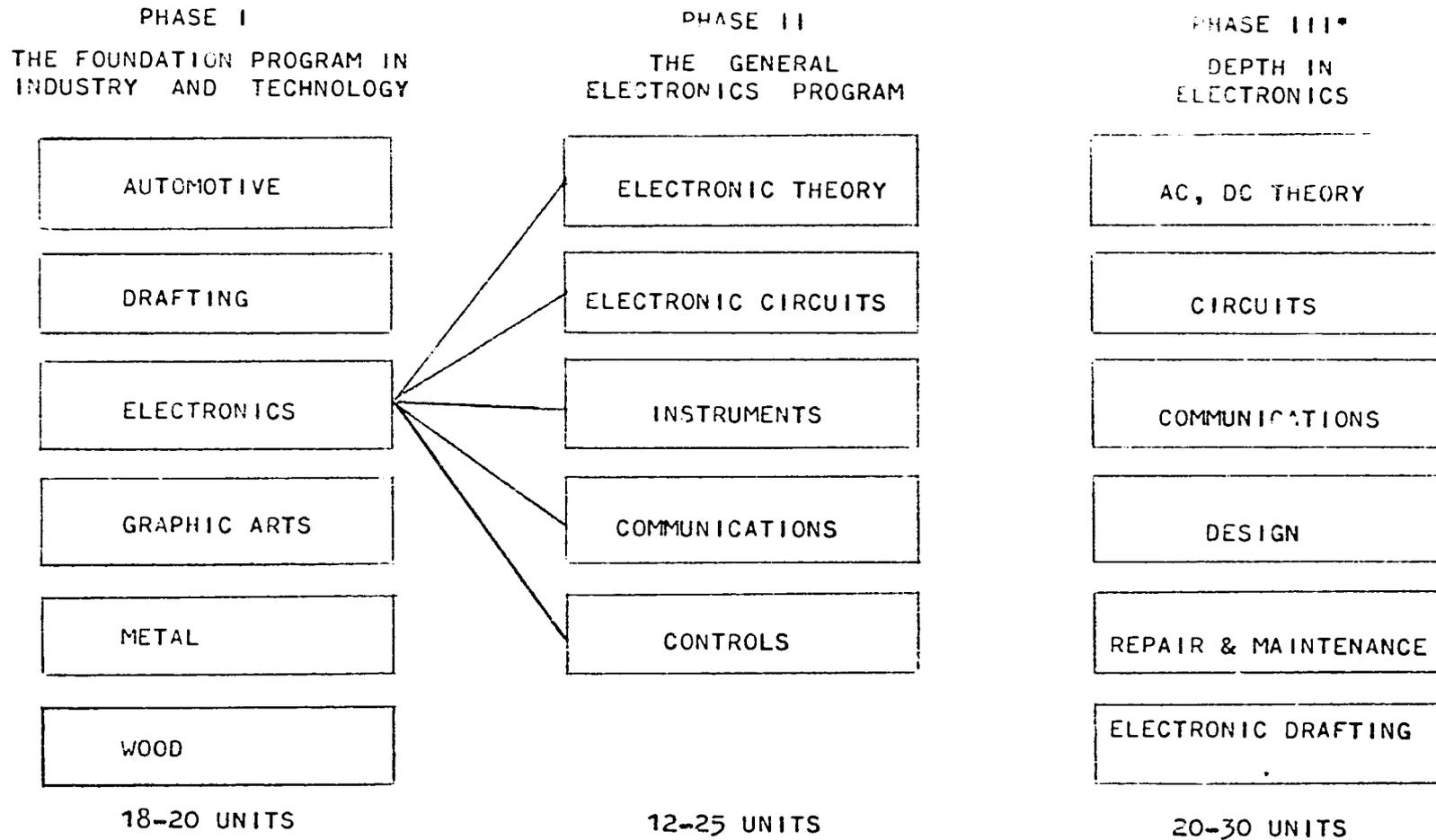


-15-

* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

EXHIBIT TEN

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN ELECTRONICS



* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

EXHIBIT ELEVEN

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN MACHINE SHOP

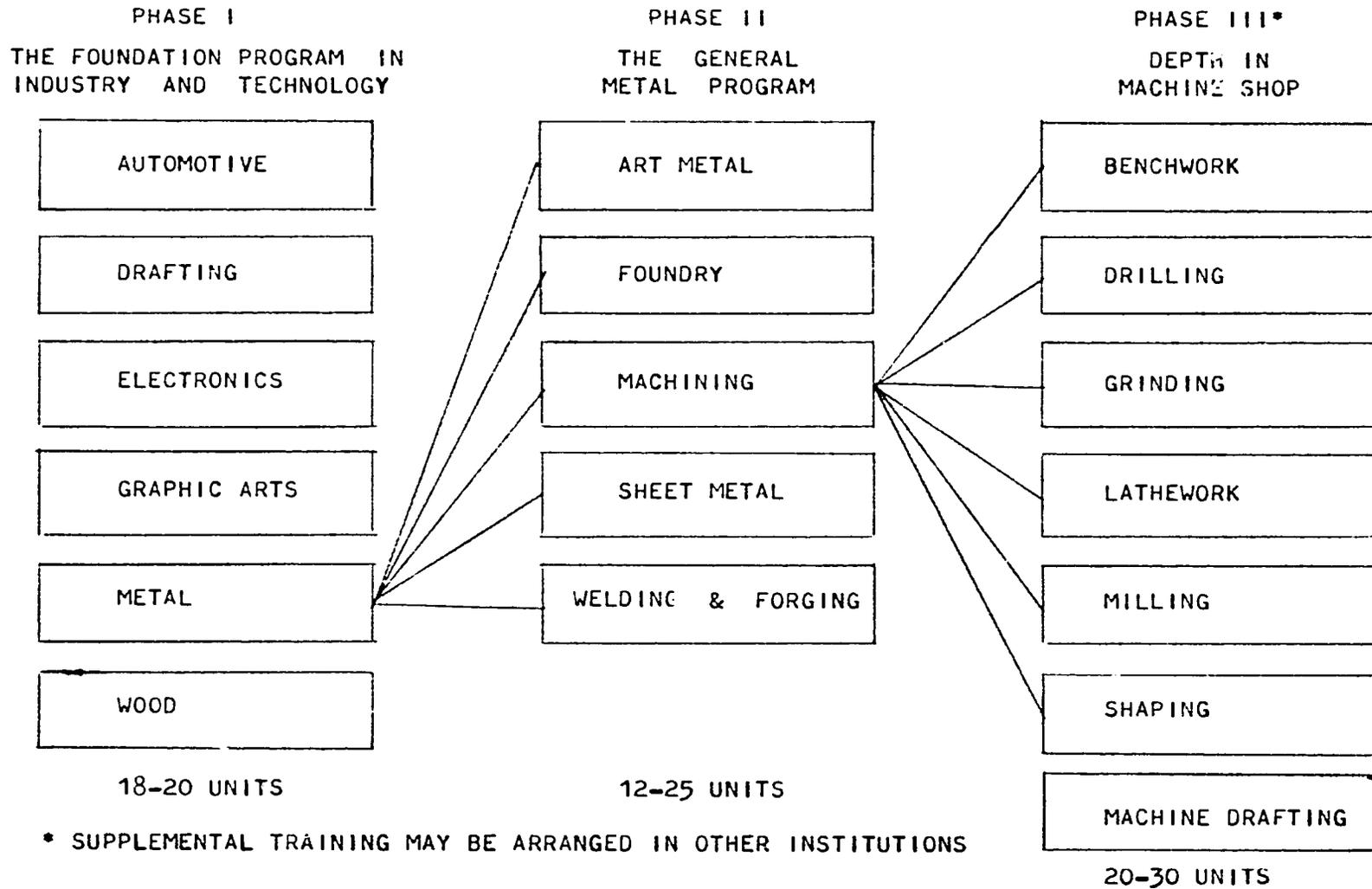
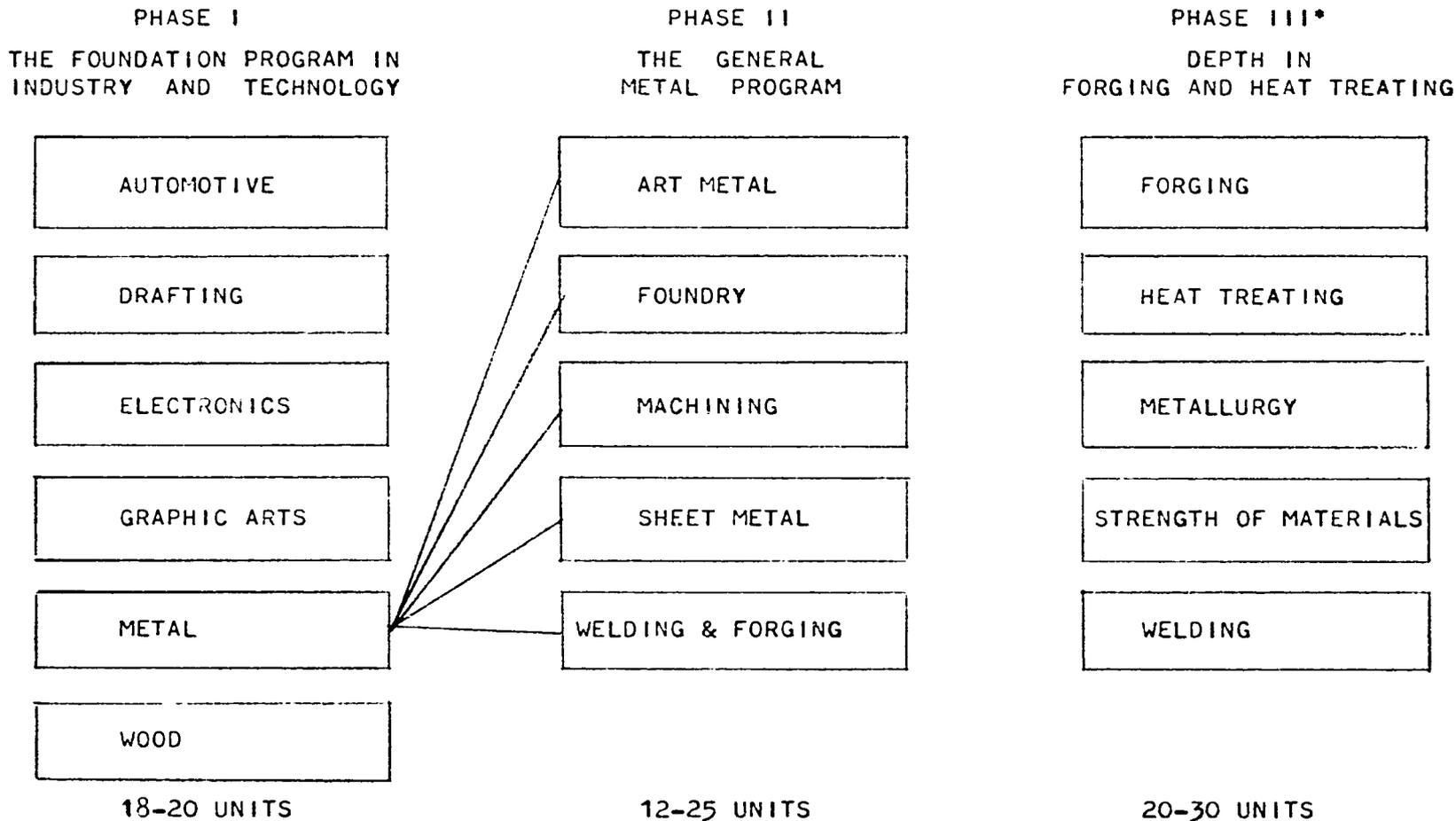


EXHIBIT TWELVE

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN FORGING AND HEAT TREATING

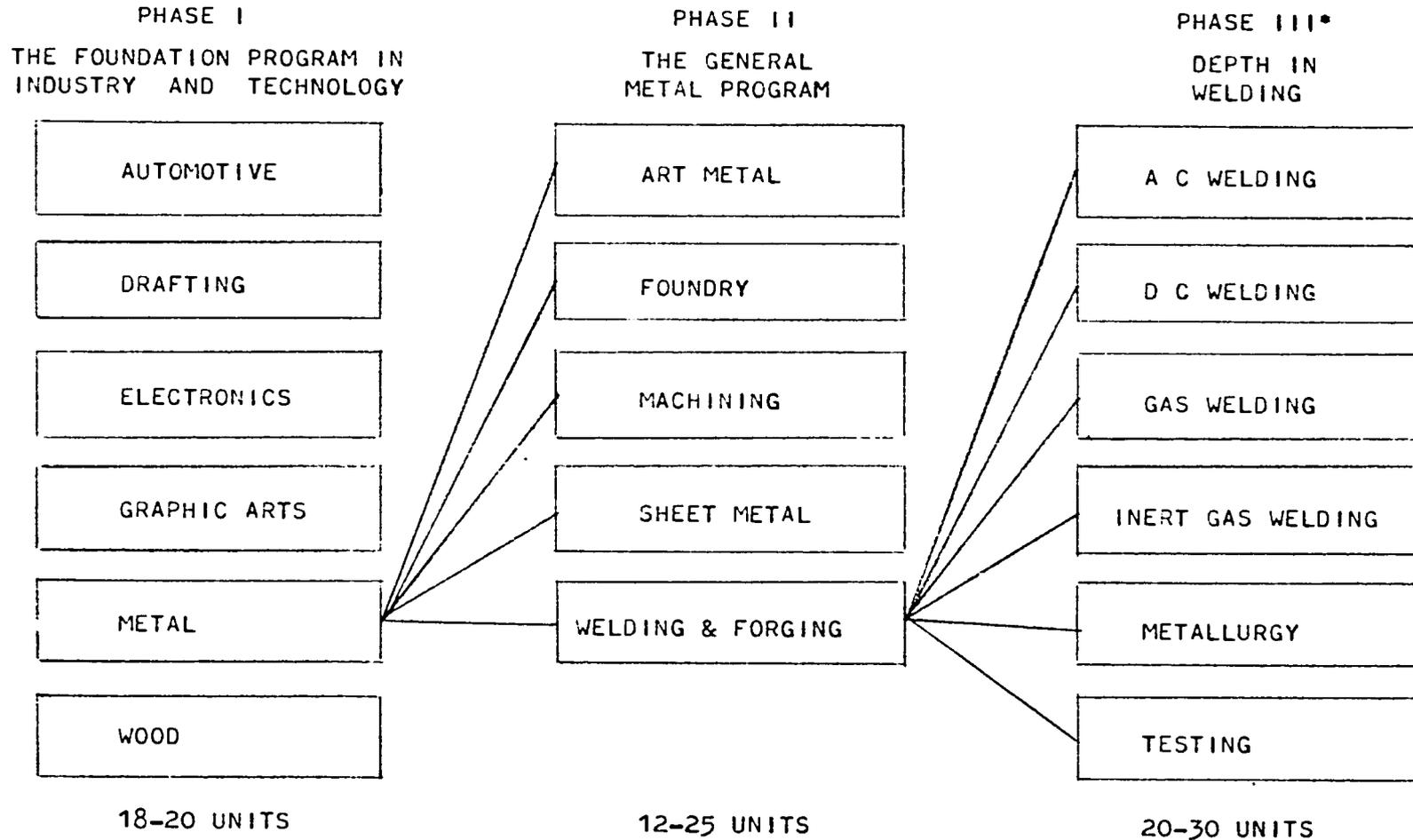


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* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

EXHIBIT TWELVE-A

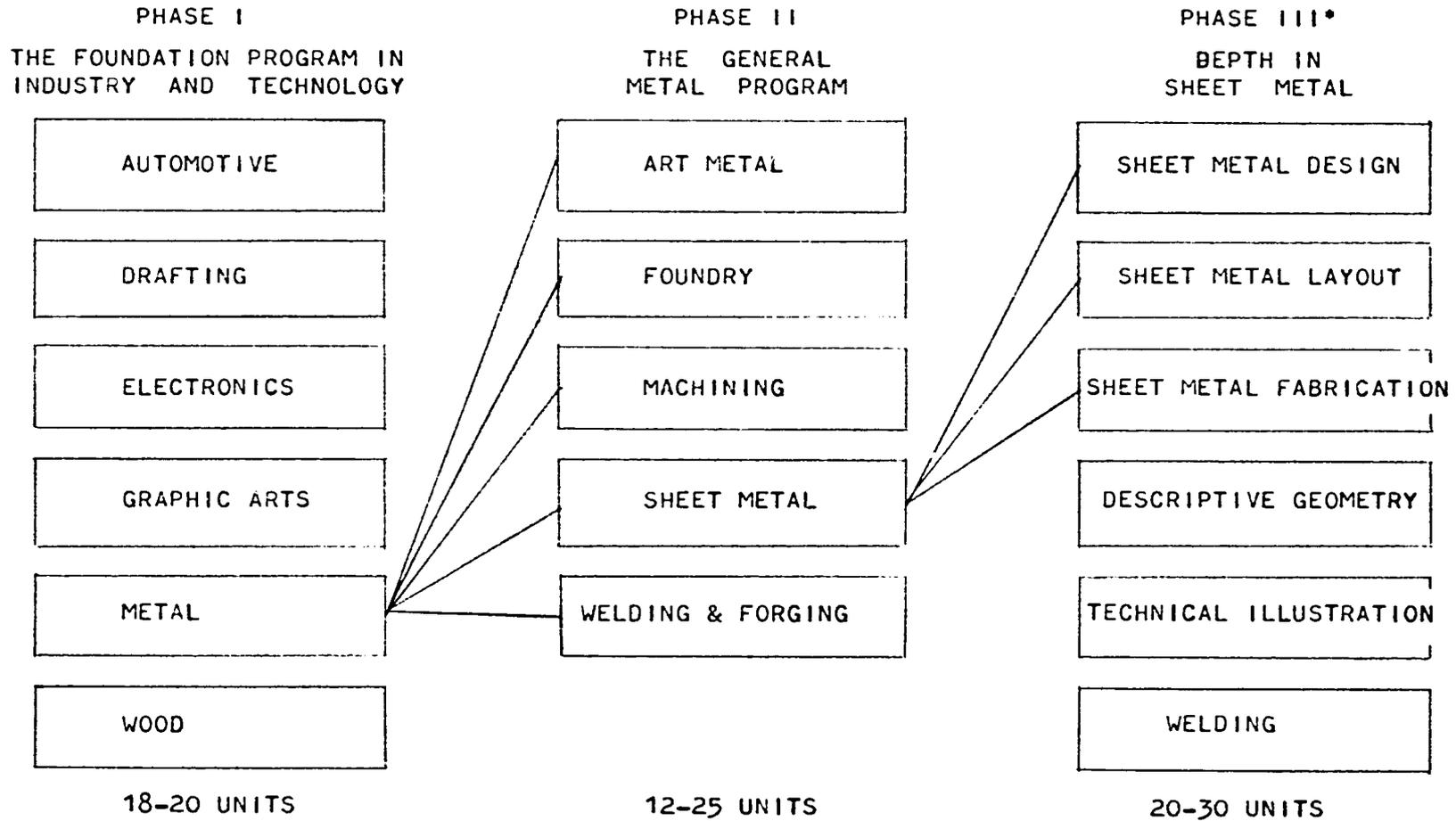
THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN WELDING



* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

EXHIBIT THIRTEEN

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN SHEET METAL



* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

BEST DOCUMENT AVAILABLE -50-

EXHIBIT FOURTEEN THE PATTERN FOR THE TECHNICAL
MAJOR WITH A SPECIALIZATION IN AIR CONDITIONING AND
REFRIGERATION

PHASE I
THE FOUNDATION PROGRAM IN
INDUSTRY AND TECHNOLOGY

- AUTOMOTIVE
- DRAFTING
- ELECTRONICS
- GRAPHIC ARTS
- METAL
- WOOD

18-20 UNITS

PHASE II
THE GENERAL
METAL PROGRAM

- ART METAL
- FOUNDRY
- MACHINING
- SHEET METAL
- WELDING AND FORGING

12-25 UNITS

* SUPPLEMENTAL TRAINING MAY BE ARRANGED IN OTHER INSTITUTIONS

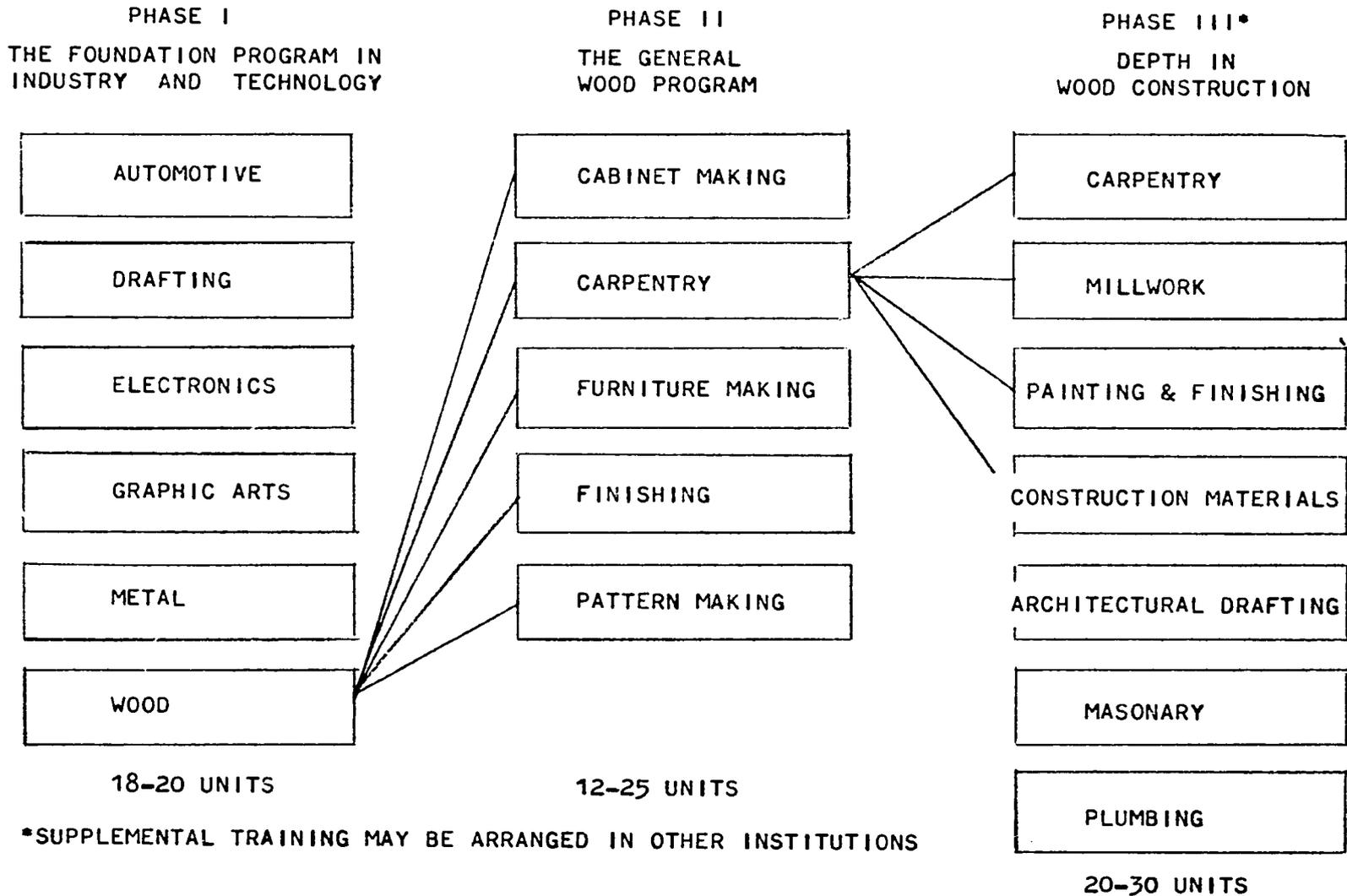
PHASE III*
DEPTH IN REFRIGERATION
AND AIR CONDITIONING

- DESIGN
- INSTALLATION
- SERVICING
- CONTROLS
- DRAFTING
- MACHINE SHOP
- SHEET METAL
- WELDING

20-30 UNITS

EXHIBIT FIFTEEN

THE PATTERN FOR THE TECHNICAL MAJOR WITH A SPECIALIZATION IN WOOD CONSTRUCTION



Based on the present and proposed programs at the National School of Arts and Trades in Phnom Penh specializations will be needed in the following areas:

1. Air conditioning and refrigeration
2. Automotive
3. Electricity
4. Electronics
5. Foundry
6. Machine Shop
7. Sheet Metal
8. Technical and Architectural Drafting
9. Pattern Making
10. Welding and Forging
11. Wood Construction

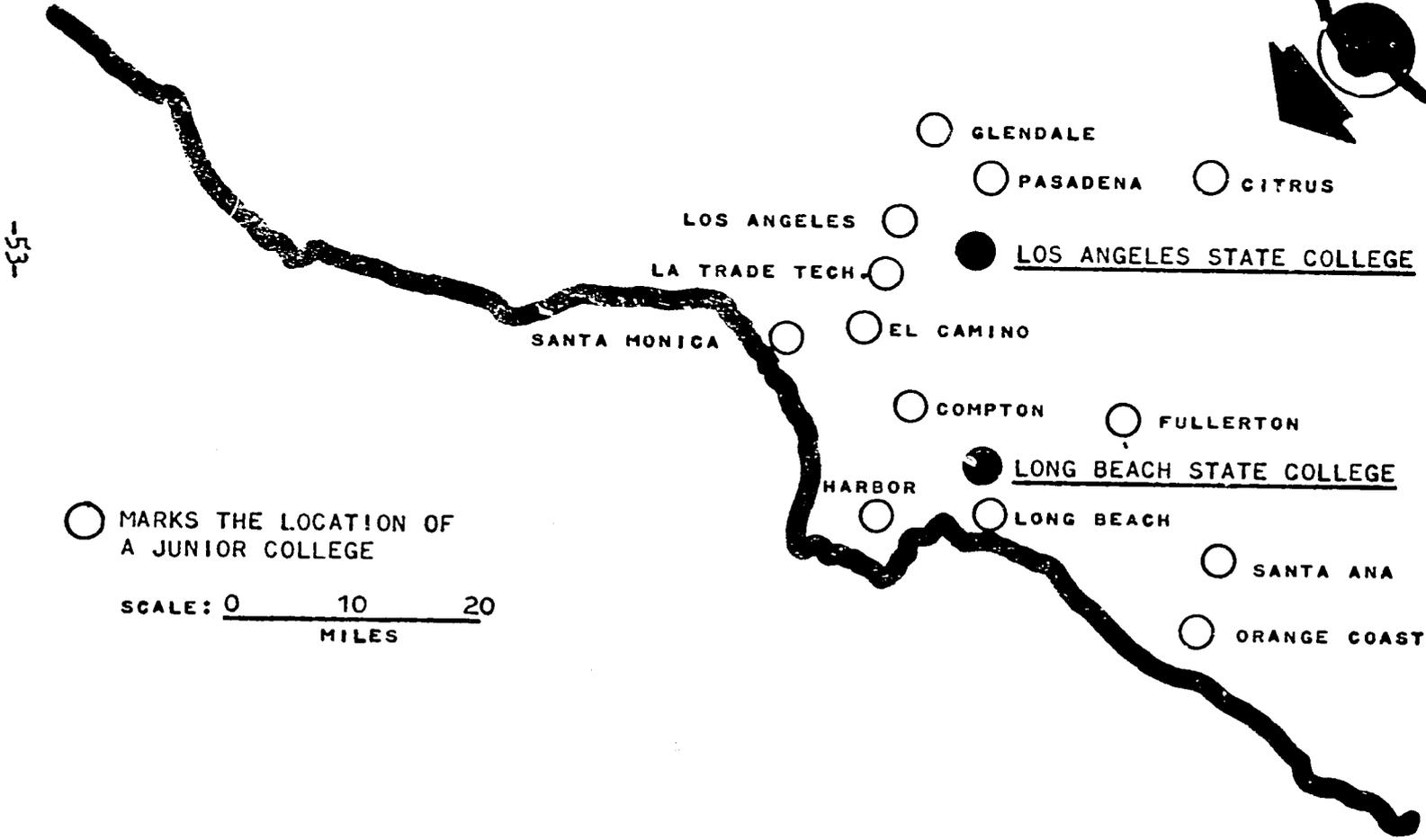
These institutions have highly specialized vocational programs that can be used to provide special training if needed. Exhibit Sixteen shows the location of the participating colleges and surrounding junior colleges.

The following list gives a few examples of junior colleges and their specializations:

Cerritos	Metallurgy Electronics
Compton	Automotive
Fullerton	Electronics Drafting
Harbor	Machine Shop
Long Beach City	Air Conditioning and Refrigeration Sheet Metal
Los Angeles Trade Technical	Air Conditioning Electricity
Orange Coast	Drafting and Building Construction
Pasadena	Electronics and Machine Shop

EXHIBIT SIXTEEN

THE RELATIVE LOCATIONS OF LOS ANGELES AND LONG BEACH
STATE COLLEGES AND SURROUNDING JUNIOR COLLEGES



○ MARKS THE LOCATION OF
A JUNIOR COLLEGE

SCALE: 0 10 20
MILES

A fifth part of the teacher education program includes a series of courses designed to strengthen the other four parts of the program. Additional work in this area will be required as individual and group needs are determined by periodic evaluation of the progress being made. When regular classes are not available special classes, seminars, workshops, conferences or tutoring will be used. Special courses to develop language skills will be a necessary part of this program.

CHAPTER IV.

INFORMATION ON THE COLLEGES AND THE LOS ANGELES COMMUNITY

THE STATE COLLEGES

Long Beach and Los Angeles State Colleges are two of the fifteen state colleges included in the State College System of California. The primary function of the state colleges is the provision of instruction for undergraduate students and graduate students through the master's degree, in the liberal arts and sciences, in applied fields and in the professions, including the teaching profession. The doctoral degree may be awarded jointly with the University of California.

Both Long Beach State College and Los Angeles State College are accredited by the Western College Association, the California State Board of Education, the National League for Nursing, and the National Council for Accreditation of Teacher Education. The accreditation by the National Council for Accreditation of Teacher Education is for the preparation of elementary and secondary teachers and school service personnel (elementary and secondary principals and guidance counselors) with the master's degree as the highest degree approved.

Los Angeles State College was created by an act of the Legislature in 1947. Legislative action in 1949 reconstituted the college as the Los Angeles State College of Applied Arts and Sciences.

Long Beach State College was established by the Legislature in 1949 to serve the area of Orange County and the Southeastern part of the Los Angeles County.

Both colleges provide modern laboratories for training in the areas of automotive and transportation, drafting, electronics, graphic arts, industrial crafts, metal technology, photography and wood technology. These departments have had a steady growth rate of ten to fifteen per cent each semester for the last several years. The combined enrollments of both exceeds 1200 students. Most of these are industrial arts majors working for their Bachelor's or Master's Degree.

Extracurricular leadership and participation opportunities are provided through membership in the Industrial Arts Associations and the campus Chapters of Epsilon Pi Tau, the National Honor Fraternity in industrial arts and vocational education.

ACCREDITATION

The Industrial Arts Departments are accredited by the Western College Association, the California State Department of Education and the National Council for Accreditation of Teacher Education to offer a teaching major and a minor in industrial arts education. The Departments also offer a Master of Arts Degree.

The Departments have thirty-eight full-time faculty members who have a rich background of experience in both industry and teaching. Many part-time instructors are used to supplement the regular faculty in those areas where specialists are needed and are available.

LOS ANGELES AREA AS A CULTURAL AND INDUSTRIAL CENTER

The colleges are located in an industrial, cultural, and populated center generally described as the Greater Los Angeles Area.

Los Angeles State College is located four miles east of the Los Angeles Civic Center. Long Beach State College is located about eighteen miles south and west of Los Angeles State College. A major freeway joins the two campuses.

In construction, Los Angeles-Orange County leads the nation. There are 300,000 people employed in construction industries in this area. The "Census of Manufacturing" reveals Los Angeles as the third largest manufacturing center of the nation. It is next to New York and Chicago. In this decade it will overtake Chicago, and by the year 2000 will equal the manufacturing production of New York.

The following figures on manufacturing are based on information from the Los Angeles Chamber of Commerce and reveal the magnitude of manufacturing in this metropolitan area. Compared to all other cities in the United States, Los Angeles is -

First in:

- Aircraft, including parts, equipment and instruments
- Electronics
- Motion pictures
- Plumbing, heating and refrigeration equipment and supplies
- Structural clay products
- Space research and development

Second in:

- Rubber goods - tires, tubes, etc.
- Pottery and glass
- Jewelry and silverware
- Oil refining equipment
- Nonferrous products
- Women's apparel
- Storage batteries

Third in:

- Automobile assembly
- Printing and publishing
- Wood products
- Household furniture

Canning
Soap and related products
Processed dairy products

Los Angeles is also a major manufacturing center for:

Machinery
Electrical machinery
Chemical products
Motor vehicle parts
Production of primary metals
Paper products
Instruments

In addition to its leadership position as a center of population and industry, Los Angeles is also one of the leading cultural centers of the nation and the world. The students in this training program will have an opportunity to visit for both enjoyment and study many museums, art galleries, theaters, sports and amusement centers. These provide an opportunity for a more complete educational experience for all participants.

The Los Angeles-Long Beach area is somewhat unique in the blending of numerous racial, cultural and ethnic groups. Foreign students are not only accepted without question but have an opportunity to become a part of the culture of the community.

JUNIOR COLLEGES AND SECONDARY SCHOOLS

A higher concentration of junior colleges is found in the Greater Los Angeles Area than in any other section of the United States. These schools are noted for advanced technical programs which have been developed to provide high level technical personnel for the industrial complex found in the surrounding communities. These schools are available for implementing Phase III of the proposed plan.

There are several hundred secondary schools in the area that will provide selectivity in the development of observation, internship and student teaching programs.

ADMISSION AND REGISTRATION

Admission standards are in accordance with policies stated in the California Administrative Code, which provides uniform admission regulations for all California State Colleges. All students must matriculate by establishing eligibility for admission in accordance with procedures outlined below.

The following procedures and requirements apply to undergraduate students (defined as students not having a baccalaureate degree), and graduate students (holders of a baccalaureate degree).

New Students: Students registering for the first time must file an Application with the Office of Admission and Records on the form provided for that purpose.

Returning Students: Students planning to return after an absence of one or more semesters must file an Application for Re-admission.

Transcripts are required: Transcripts are not accepted from the student, but must come directly to the Office of Admissions and Records from the institutions attended. All transcripts become the property of the college and will not be released. The work taken at one college listed on the transcript of another college is not acceptable.

An applicant for admission as a freshman must qualify under one of the following provisions:

1. Have completed the equivalent of 7 Carnegie units (14 courses, other than physical education and military science, of one semester each, meeting five periods per week) with grades of A or B on a five-point scale. These courses must have been completed during the last three years of high school.
2. Have completed the equivalent of 5 Carnegie units (10 courses, other than physical education and military science, of one semester each, meeting five periods per week) with grades of A or B on a five-point scale. The applicant must have completed these courses during the last three years of high school. In addition, he must have attained the 20th percentile or higher on the national norm of the college aptitude test given by the college.

The following courses are recommended as preparation for any college course leading to the bachelor's degree: English, 3 years; Algebra, 1 year; Geometry, 1 year; one foreign language, 2 years; American History and Civics, 1 year; additional Social Science, 1 year; Chemistry, Physics, Physiology, or Biology, 1 year. Typing is a recommended elective.

NON-RESIDENT STUDENT FEES

Admission requirements for non-resident students are the same as those for all other applicants and are shown on the preceding pages. A non-resident tuition fee is payable by all regular and limited students who have not been legal residents of the State of California for one year immediately preceding date of enrollment. This fee amounts to \$12 per unit, to a maximum of \$180 per semester. This is subject to change by the State College Board of Trustees. Foreign visa students must pay non-resident tuition during their entire period of attendance at the college.

SCHOLARSHIP REQUIREMENT

Each student shall complete with a grade-point average of 2.0 (grade C on a 5 point scale) or better:

- (a) All units attempted, including those accepted by transfer from another institution;
- (b) All units in the major; and
- (c) All units attempted at the college granting the degree.

RESIDENCE REQUIREMENT

For the bachelor of arts, bachelor of science, and bachelor of vocational education degrees, a minimum of 24 semester units shall be earned in residence. At least one-half of these units shall be completed among the last 20 semester units counted toward the degree. Credit in summer session may be substituted for regular session unit requirements on a unit-for-unit basis.

U. S. HISTORY AND CONSTITUTION REQUIREMENT

The requirements set by California law of (1) American History (2) United States Constitution, and (3) California State and Local Government must be met by all graduates. This includes demonstrating competence in the Constitution of the United States, in American History, including the study of American institutions and ideals, and the principles of state and local government established under the Constitution of this state.

GRADING SYSTEM

The marking system is as follows: The letters A, B, C, and D indicate passing grades: A, excellent; B, above average; C, average; D, below average; Cr. denotes credit, no letter grade assigned. Failure is indicated by F. WF means "withdrew failing." This mark

is assigned a student who is below average at the time he is allowed to withdraw from a course. WP ("withdrew passing") is assigned if a student is doing average work meriting a grade of C or better at the time of official withdrawal. UW indicates "unofficial withdrawal."

If a student is unable, due to unusual and unforeseeable circumstances not encountered by the other students in the class, to complete all of the semester's work, but has satisfactorily finished all except the final four weeks, he may, at the discretion of the instructor, receive an "incomplete" (recorded "Inc."). An Inc. grade must be cleared within one year from the end of the semester in which it was received. Otherwise, it remains an incomplete grade on the student's record and is counted as an F in calculating the grade point average.

The scholarship average is obtained by dividing the total number of grade points by the total number of units attempted, or for which the student registered. Grade points are assigned as follows:

Grade A receives 4 points per unit of the course taken
Grade B receives 3 points per unit of the course taken
Grade C receives 2 points per unit of the course taken
Grade D receives 1 point per unit of the course taken
Grade F or WF or UW or Inc. receives 0 points per unit
of the course taken
Grade WP is not figured in the grade point average
Grade CR is not figured in the grade point average

REPEAT COURSES

Students may repeat courses in which a grade of D, F, or Inc. was previously received. However, both the original grade and grade earned in the repeated course will be figured in the calculation of

the student's grade point average. No additional credit toward semester unit requirements will be allowed for repeat of course in which the initial grade was D.

SCHOLASTIC STANDING

Students who are experiencing scholastic difficulties are urged to discuss their progress with their advisor, as well as with the college's Counseling Office.

Probation: A student whose scholarship record shows a grade point average of less than C (2.0) for all work attempted will be placed on probation. Students placed on probation are required to make an appointment with their counselor.

Disqualification: A student who earns less than a C (2.0) average in a semester while on probationary status will be disqualified. Disqualified students are not permitted to register. Under certain conditions disqualified students may apply for readmission after the lapse of at least one semester.

HONORABLE DISMISSAL

In order to qualify for an honorable dismissal, the student must be free from financial obligations to the college and from disciplinary action. Academic disqualification does not constitute dishonorable dismissal.

EXAMINATIONS

Final examinations are required in all courses. No final examination is given to an individual student before the scheduled time.

ATTENDANCE REGULATIONS

The effect of absence from class upon the student's grade is at the discretion of the individual faculty member. In courses involving lectures and direct student participation, absence will affect the student's grade. The student is responsible to the instructor to make up work missed because of unavoidable absence.

CHAPTER V.

PROVISIONS FOR IMPLEMENTING THE CAMBODIAN PLAN FOR COOPERATIVE PARTICIPANT TRAINING

DIRECTION OF THE PROGRAM

The program at each college must be placed under the direction of assigned personnel. The individual must be well informed as to the objectives of the program, have a sincere interest in the students involved and be willing to spend many extra hours solving problems related to the program. It is recommended that Dr. C. Thomas Dean, Chairman of the Division of Applied Arts and Sciences at Long Beach State College, and Dr. Clifford Dobson, Chairman of the Industrial Arts Department at Los Angeles State College, be named director at their respective schools. They will be responsible for the overall details of the program.

COORDINATION OF THE PROGRAM

The schools must be provided with additional personnel to do the actual coordinating of the training. It is imperative that "grassroot" coordination be provided on both college campuses if an effective training schedule is to be maintained. The coordinator shall be full-time with only the responsibility for seeing that all aspects of the program are carefully planned and carried out according to the prescribed schedule in the contract between the colleges and AID.

An experimental program of this type and magnitude must be carefully coordinated to keep it moving smoothly through all its

various phases. There will be many people, departments, agencies and schools involved and these have to be properly drawn together into a coordinated program. Without adequate coordination the program could very well be only average in effectiveness while with proper coordination it can be outstanding and set an example for others to follow.

A full-time coordinator should be provided to work in the office of such assigned director at Long Beach State College and Los Angeles State College. He should be provided with adequate secretarial help and office equipment to do the work necessary for operating the program. He should also be given a budget from which office supplies can be purchased as these would not be available, in the quantity needed, from the college.

There are many aspects of the program that need close and continuous attention. This can only be done by a coordinator with this as his full-time responsibility. One must realize the type student and his problems as well as the goals we desire to achieve before the full significance of the venture can be truly grasped. It is important that all segments of each college be cognizant of the training desired. The students are working for a baccalaureate degree and must meet all the general requirements as well as developing technical proficiency. The coordinator will have the responsibility for promoting the program in all areas of the college. People who are ignorant of the facts are not going to be too sympathetic toward the program. They must be made to realize that these students have special needs that must be met if the colleges are to provide

them with a proper background for their future work in Cambodia. This is a difficult but very important part of the training program and will be very time consuming.

The coordinator will have the responsibility for arranging living quarters in college approved housing. This becomes a real chore when approximately fifty students are involved at each school. It becomes more difficult when these are foreign students with no transportation and a language deficiency that is often hard to negotiate. There is adequate housing in the area of both colleges, but it takes time to get these arranged when needed. It is also essential that proper distribution of students within the community be maintained so that they are subjected to typical American family life.

PROGRAM ADVISEMENT

Program advisement is extremely important if the students are to complete the curriculum in a reasonable amount of time with the background required. It is essential that each student be individually counseled and each program planned in great detail. This is to conform to the proposed curriculum outlined in this report. It has been found that these students take many more hours of time for programming than that required for the regular American student. Practically all of the students have a language handicap during their first year which poses a problem in the scheduling of classes. The coordinator will have the responsibility of assuring that schedules are in order and the required program is followed. This is very important and requires considerable time. He will be the person responsible for coordinating

the departmental counselors, college foreign student adviser and the director of the program so that all items are properly handled in the best interest of the student.

Each college should be provided with additional personnel to assist with the student counseling. Funds should be provided to allow for staffing on a formula of one unit of instructional load for each two participants or a full-time faculty member for every twenty-four students. This is the same ratio as that allowed for the supervision of student teachers. Such a formula would allow enough personnel to do an outstanding job with every participant. This is one of the most important factors in making this a successful program. It is only fair that extra personnel be provided as the departments cannot neglect their regular student body which also needs assistance.

In addition to the regular program it will be necessary to provide special seminars, workshops, conferences, and tutoring for the students. These should be available for both the individual student or any part or all of the group. When the need arises the coordinator, with the assistance of the program director, will work out the necessary details for implementation. These could be in any aspect of the training program. There should be a provision in the contract to cover any expenses involved in such training.

CULTURAL OPPORTUNITIES

The students should also have an opportunity to participate in many of the cultural activities found at the college as well as in the surrounding community. These should be planned so that they

fit into the academic programs of the student. The coordinator will have the responsibility for arranging the maximum number of various activities for the student.

Trips to various areas and cities should be arranged to visit industries, educational facilities and cultural events such as operas, plays, etc. Funds should be provided for covering the extra expenses involved in such pursuits. This should be done as a group through the direction of the program coordinator and could be done either during school holidays or during the summer between school terms.

PROGRAM REPORTING

There should be a comprehensive reporting system developed so that the AID office, the Cambodian Government, and the college are kept current on the status of the program. Individual student records should be maintained with copies of pertinent reports placed in the student's jacket. Student progress reports should be made at regular intervals with comments relating to his achievement or problems.

The program must be coordinated with the AID office, Cambodian Government and the National School of Arts and Trades. The coordinator must be in direct correspondence with all parties so that the best thinking of all concerned can be reflected in the program. Any changes must be immediately incorporated into the training schedule at each college. There must also be close coordination between the Long Beach State College and Los Angeles State College program director and coordinator. There must be a continuous flow of information both ways with all agencies and parties in order to have maximum effectiveness.

The coordinator will act as the liaison officer with the various departments at the college and other colleges within the service area of both Long Beach State College and Los Angeles State College. Close contact must be maintained with those colleges providing special training courses in technical areas not taught at the state college. There might be cases where specialized training is required for one or more students. This might encompass both educational or industrial facilities and would be arranged for by the coordinator cooperatively with the program director.

The program should be under continuous evaluation to ascertain its effectiveness and progress. These reports should be forwarded to the AID office, US-AID in Cambodia and the National School of Arts and Trades. The same system of reporting should be used for both participating schools.

SPECIAL SERVICES AND FUNDING

In order to maintain an effective training program an annual coordination conference will be held. The present plans call for the first such session in August 1963. This will include people from both participating colleges, US/AID Office, Cambodian Ministry of Education, all Cambodian students in training in the United States and any other people so designated by US/AID. This will be held for two weeks following the end of the regular summer session on the campus of one of the participating colleges. It is recommended that the first conference be held at Long Beach State College where dormitory facilities are available for housing the participants.

The program will include:

- A. A series of specialized seminars on the coordination of the program, the evaluation and modification of the individual participant programs, up-to-date information and trends in Cambodia and other current problems relating to the program.
- B. A series of tours to participating educational institutions, industries, junior colleges and appropriate secondary schools.
- C. Demonstrations on new developments in teaching methods and techniques such as automated teaching devices, audio-visual equipment and techniques, closed circuit television, new industrial equipment, materials and processes.

Since the Cambodian students would not be involved in all of the conference meetings, a special workshop on advanced problems in industrial education will be offered concurrently for the students.

The plan provides for personnel from the participating colleges to visit Cambodia to resolve problems which will certainly rise in the program such as - to study local needs and changes, student follow-up to evaluate the effectiveness of the program, to provide in-service training under local Cambodian conditions, to study the training program for teaching English to the participants, and any other such factors that might be recognized as needing "on-the-spot" consideration or implementation. This will develop a better understanding of the program and provide good liaison between those people directly involved. Such an exchange should be at least every other year alternating with the conference held in the United States. Provisions will be made for conferences as needed if and when key US/AID personnel are changed. It is imperative that all

those involved in the program have a clear understanding of all details at all times. Effectiveness can be maintained only if this is true.

Travel expenses should be provided for the director and coordinator to cover those items relating to the training program. Considerable travel will be involved in visiting schools, industries, and other facilities used to augment the program. These should be in accordance with the regular government allowances.

Funds should be provided to cover the cost of tuition, student per diem, books, supplies, materials, special fees, student insurance, student travel and any other required miscellaneous expenses. Those items that can be handled by direct payment to the student such as per diem, travel, etc. should be so handled. All items such as books, materials, tuition, etc. should be handled directly through the participating school. The colleges should be consulted as to overhead costs involved in handling the contract. This should be included within the overall contract. Provisions should also be made for any increases, in such items as student tuition, as the cost of education rises.