

AGUIRRE INTERNATIONAL

REPORT OF FIRST VISIT TO PROVIDE  
TECHNICAL ASSISTANCE TO TECSUP

June 8 - 22, 1985

Submitted to

TECSUP

USAID - Bureau for Private Enterprise  
AID/LIMA

by

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# Aguirre International

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July 16, 1985

Ms. Andrea Mohn  
Bureau for Private Enterprise  
U.S. Agency for International Development  
1735 North Lynn Street  
Rosslyn, Virginia 20523

Dear Ms. Mohn:

Attached herewith is our report pursuant to a site visit to Lima, Peru and to the Institute for Advanced Technological Studies (TECSUP).

This activity was authorized under Contract No. DPF-002-C-5019 with an effective date of May 20, 1985.

We find the opportunity to work with TECSUP and AID to be a challenging and rewarding experience because of the significance of the endeavor to the industrial development of Peru. We look forward to our next two visits to TECSUP.

Sincerely yours,

*Edward Aguirre*

Edward Aguirre Ed.D.  
President

## TABLE OF CONTENTS

	Page
Background	1
Objectives of Technical Assistance	3
Methodology/Process	4
Findings	6
Response to the Deloitte, Haskins and Sells Findings	6
Organizational Information Systems	7
TECSUP Planning Format and Staff	9
TECSUP's Organizational Domain as of June, 1985	9
TECSUP Objectives	10
Department of Instruction	11
Summary	13
Recommendations	15
Appendices	
A. AI Updated Scope of Work	16
B. TECSUP Organizational Chart - June 1985	21
C. TECSUP Curriculum Report	23
D. TECSUP Academic Calendar	35

# A G U I R R E I N T E R N A T I O N A L

## REPORT OF THE FIRST TECHNICAL ASSISTANCE VISIT TO TECSUP

June 8-22, 1985

Edward Aguirre, Ed.D. and Angela B. Garcia, Ph.D.

### BACKGROUND

The Asociacion Promotora de Institutos Tecnologicos Superiores (TECSUP) is a private Peruvian non-profit educational institution organized in May, 1984, as a result of a perceived need to create a technical institute which could supply the human resources essential to the development of an emerging national industrial economy. Such diverse groups as the German State of Baden-Wuerttemberg and the US Agency for International Development as well as the private sector within Peru have invested in this effort.

Because the planners of this initiative were conscious of the explosion of technologies that would continue through the next decade, great care was taken to construct a quality physical plant in keeping with the specifications as outlined by German technical assistance consultants. A pivotal decision was made to plan a facility that would anticipate the projected needs of Peru.

In late 1984, AID contracted studies to analyze TECSUP. One of the studies included a situational analysis and diagnostic assessment of the TECSUP program by former United States Commissioner of Education and President of Aguirre International Edward

Aguirre. Dr. Aguirre formulated short- and long-term recommendations including a strategic planning process for TECSUP.

AID subsequently contracted with Aguirre International to provide follow-up assistance to PRE/AID and TECSUP in implementing the recommendations, particularly the strategic planning process and liaison with the Delaware Technical Community College (DTCC), AID-PERU, and PRE.

Strategic planning is the process of intensively and systematically (a) analyzing an organization, its "business" or nature and purpose, internal and external aspects or components which affect its effectiveness and success; (b) studying alternative strategies to achieve success; (c) producing dynamic plans (short-term/operational, long-term, and strategic/evolving) and systems for monitoring the implementation of those plans; implementing the plans; and (d) monitoring the implementation and changing the plans as a result of the systematic collection of information and decision making.

This report describes the products of the first visit to provide that assistance. Aguirre International will be submitting two additional reports based upon information gathered and work accomplished at each subsequent visit. The final report will be submitted after the December 1985 visit and will document TECSUP progress in developing and implementing the strategic planning process, a major goal of Phase II (see the Aguirre December 1984 report). It will also include the strategic plan for 1986-1989, which is the major product of TECSUP's current strategic planning process with technical assistance from Aguirre

International.

The final report will provide AID with the management information and recommendations necessary to allow them to make the decisions basic to any future relationship with TECSUP.

This strategic plan will be one of the critical elements upon which AID/Peru will make a determination of its long-term commitment to TECSUP. A major component of the strategic plan is to be the 1986 Operational Plan. This Operational Plan will include descriptions of (a) specific TECSUP objectives and measurable indicators of attainment, (b) the resources needed to attain those objectives, and (c) the numbers of students to be trained per field. This Plan will enable AID/Peru to make decisions relating to TECSUP for 1986 and thereafter.

#### OBJECTIVES OF AGUIRRE INTERNATIONAL TECHNICAL ASSISTANCE

1. Facilitate project management and coordination of U.S. technical assistance with the activities of TECSUP, DTCC, AID/Peru and AID/PRE. (Aguirre International is to be informed of all plans and developments so that these can be integrated into the strategic planning process.)
2. Transfer to TECSUP the principles and methods underlying strategic planning and management/educational data systems. Refine and extend the strategic planning accomplished thus far to produce an institutional TECSUP Strategic Plan for 1986-1989, including a process for generating yearly operational plans. Train TECSUP staff, as needed, in the implementation of specific strategic planning components.
3. Provide assistance in refining the TECSUP/AID decision data

system to produce ongoing information for TECSUP, AID/PRE, and AID/Peru for long-term planning and operations. (Design and pilot computerized data base of management activities, including agreements, tasks to be performed, materials developed, evaluation process for this project based upon the recommendations made in December 1984 Aguirre report.

#### METHODOLOGY/PROCESS

Due to the importance of assuring maximum clarity in the role and relationships of those involved in the TECSUP project, it was decided that prior to Dr. Aguirre's site visit to Lima, a meeting would be arranged in Washington, D.C. This was arranged in order to take advantage of the opportunity presented by a visit of TECSUP General Director Rodolfo Beeck and Chairman of the Board of Directors Luis Hochschild, to this country. The meeting was highly productive, resulting in clarification of roles and responsibilities.

Dr. Aguirre met in Washington, D.C. with Andrea Mohn of AID/PRE, Mssrs. Beeck and Hochschild of TECSUP, and Anthony Digenakis, assistant to the president of DTCC. In addition to clarification of roles and responsibilities, it was agreed that Aguirre International would receive from DTCC, TECSUP, and AID all information necessary to keep current on project developments so as to integrate that information into the development of the TECSUP strategic and operational plan.

In Peru, Edward Aguirre and AI associate, Dr. Angela Garcia, met with AID and TECSUP staff to review and update the AI scope of work (Appendix A) and obtained updated information on the

organizational perspectives and changes related to studies conducted by Deloitte, Haskins, and Sells and by DTCC.

It was encouraging to note that as a follow-up to some of the concerns raised in the last report, the basic management staff now in place showed significant stabilization. Mr. Beeck, as General Director and chief planner for TECSUP, identified the key personnel to be responsible for planning. The following people were assigned:

- \* Mr. Fernando Guzman, currently Director of Student Loan Funds to coordinate the planning process. Mr. Guzman obtained an MBA from St. Thomas University in Houston, Texas, including training in strategic planning. That plus his new, developing position at TECSUP, makes him a strong choice as planning coordinator.
- \* Mr. Pablo Cabieses, who heads the Department of Administration and has extensive experience within the private sector. While employed by Volvo, he developed expertise in the use of computer information systems for management decision making.
- \* Mr. Armando Rivas, who currently heads the Department of Instruction, has extensive experience both as an engineer working in industries likely to employ TECSUP trainees and as a university administrator of training programs for private-sector employers.

As part of the development of the 1986-1989 TECSUP Strategic Plan, TECSUP planning coordinator Fernando Guzman work extensively with AI consultants. The General Director called a meeting of the planners to orient them to the process. Each director,

including the General Director, was interviewed individually and provided extensive information on department functions, procedures, and objectives.

## FINDINGS

### Response to the Deloitte, Haskins and Sells Findings

Mr. Beeck and members of the planning team reviewed with great care the recommendations made by Deloitte, Haskins and Sells and agreed that most of the recommendations were acceptable and could be implemented. This was reassuring, since Mr. Beeck's analysis of the practicality of the recommendations is pivotal to their implementation. Aguirre International agrees with TECSUP's plan for implementing the Deloitte, Haskins and Sells recommendations as outlined below.

TECSUP views the recommendations and examples presented in the report as standard general accounting procedures and forms which TECSUP uses currently or plans to implement when their Basic Four minicomputer donated by CitiBank is delivered. (Delivery was initially set for March, 1985. As of June, the date has been tentatively set for August.)

The Basic Four system will include the software for the payroll, personnel, student data, financial and accounting record-keeping systems which will conform to the general accounting plan required by the Peruvian government for industries and public institutions referred to above. This Peruvian General Accounting Plan is expected to meet or exceed the Deloitte, Haskins and Sells recommendations.

The organizational structure and positions recommended are seen as generally appropriate. Appendix B presents the organizational chart presented by Deloitte, Haskins, and Sells with modifications of the structure of TECSUP as of June 1985 and the structure anticipated by December 1985. The Deloitte, Haskins, and Sells organizational chart recommended the establishment of an electronic data processing facility or department comprised of an analyst/programmer and operator. The modification currently under consideration is the contracting of external systems analysis and programming and the addition of a data processing specialist. Instead of an operator, each department would be responsible for inputting their own data with the support of the data processing specialist.

Deloitte, Haskins, and Sells recommended a three-person pool comprised of a secretary, a typist and a special clerk. At this time TECSUP does not plan to add the special clerk recommended as part of the secretarial pool, leaving the personnel for this function at the level of current two.

With regard to the three-year program, Deloitte, Haskins, and Sells include five areas of specialization under the director of instruction. This is unclear and seems to imply the need for head teacher/coordinators for the different areas or programs in addition to a subdirector. At the moment, each of five Peruvian engineers works with their German counterpart. The German instructors have their own coordinator of instruction.

#### **Organizational Information Systems**

The crucial need driving TECSUP is not only to meet the

current, day-to-day requirements of building a viable institution, but also to anticipate and consider alternative responses that will meet the demands of the next decade. In this day and age, operating an institution such as TECSUP requires increasingly complex, extensive and easily retrieved and manipulated information.

It is already evident that the daily management of TECSUP data for accounting, budgeting, monitoring, and decision making cannot be done through manual means without adding personnel. Addition of such personnel would place a greater burden on current staff to train and monitor the personnel and would still make the record keeping and processing cumbersome, error-prone, and relatively inflexible.

Citibank has donated two Basic Four minicomputer systems valued at a total of \$77,581. Instead of keeping both minicomputers, TECSUP negotiated the exchange of one Basic Four mini for two Multitech microcomputers plus additional software and peripheral equipment. They are making this switch to provide them with two word-processing centers. In addition, since these microcomputers are IBM-compatible, TECSUP will have access to a much larger reservoir of software capability which will increase their flexibility and better meet their needs.

This donation will allow TECSUP to meet its information needs more powerfully, with greater flexibility and utility through the development of appropriate automated data storage and retrieval systems. However, the existence of the systems is insufficient; they must be used effectively by the personnel of the organization.

In commencing the task of designing and automating much of its work, TECSUP has several advantages that many others embarking on such pioneer efforts lack: its small size and an adequate number of well-trained personnel to recognize the potential benefits and uses of the computer equipment.

#### TECSUP Planning Format and Staff

In the interest of brevity, this report will not again describe in detail the planning format since it is documented in the "TECSUP INSTITUTIONAL ASSESSMENT AND STRATEGIC PLANNING PROCESS" presented in the Aguirre December 1984 report and updated in the appendices of this report.

#### TECSUP's Organizational Domain as of June, 1985

A critical component of any strategic planning process is analysis of the organizational domain, namely, all major internal and external components or factors. Internal components or characteristics include the nature of the organization, its structure, strengths, weaknesses, history, current products and services. External factors include an organization's customers or clients, competitors, socio-cultural and economic milieu plus all other factors that affect its functioning as an organization in its field or industry.

The 1984 Aguirre report described specific environmental developments which affect TECSUP's ability to survive regardless of the plan developed and implemented, financial support obtained, or staff recruited. During the recent visit to Peru, it became apparent that the report had underestimated the grievous

impact which the inflation of the sol is having on the national economy, and consequently on TECSUP.

In 1984, the inflation rate in Peru exceeded 125%. In 1985, the inflation rate shows no sign of improving. Aside from the impact on fund raising, the effect of the resulting devaluation of the national currency must be considered with respect to the buying of actual goods and services. This signals the need for TECSUP to purchase goods and services as soon as the funds are available.

Inflation doubly handicaps TECSUP. As an organization which depends on Peruvian private-sector companies, TECSUP must raise contributions from Peruvian industries who are also severely affected by the inflation rate.

Other aspects of the TECSUP domain (organizational and department objectives and operational plans) reported in the February report were updated, will be elaborated throughout the year, and will be presented in the final report.

#### TECSUP Objectives

As stated in the original document, monitoring the progress of TECSUP, or any major organization for that matter, is best accomplished through the strategic planning process which integrates systematically developed and tracked operational plans. As part of strategic planning, AI and TECSUP analyzed the progress made by the organization in general and its three major departments: Instruction, Administration and Student Credit Fund.

These analyses will be updated with each AI visit, as is standard with the systematic review and revision process of

strategic planning. The final 1985 report will document the degree to which the short- and long-term objectives were met and describe the more current status of the TECSUP domain (its structure, strengths, weaknesses, clients, donors, trainees, competitors, etc.).

#### Department of Instruction

Several developments within the Department of Instruction emerged with this visit which should be reported now rather than at the end of the year. A highly important function of this Department focuses on the admissions process. This process included the development of entrance examinations for selecting, diagnosing and placing new students. Currently all this work is performed manually with the exception of sorting the student test data on a filing program (pfsFile) using an Apple IIe microcomputer.

Both the software and hardware are very slow for the work required with the 380 student applicants who were tested in March 1985. In addition, TECSUP had to devote over 336 person hours in order to grade the tests prior to entering the data manually into their computer files.

If the resources were available, TECSUP would benefit greatly from automation of this process, with the addition of a computer card reader. (For example, the new SCANTRON Model 1100 which can process a variety of stock answer sheets retails to educational institutions for \$1399 in the San Francisco area.)

Even if TECSUP staff continue to score the tests manually, they could process the test data more easily and sooner by using

one of the faster, more powerful and flexible data base management programs (such as dBase II, dBase III, or Data Base Manager). These programs should run on the IBM-compatible micro-computers scheduled for delivery before September.

The admissions process also requires development of extensive student profile information which must be reported to the Ministry of Education every semester. The Director of Instruction is anticipating being able to computerize the student records required for TECSUP administrative needs and for this reporting to the Ministry on the Basic Four minicomputer system. New developments or procedures in handling this large amount of information will be postponed until they have investigated that system's capacity to meet their needs.

Related to Instruction, a AID/Peru official inquired about the number of admission periods per academic year; conceivably admission of students at several semesters throughout the year could increase the financial support base for the institution. However, by regulation of the Ministry of Education (which AI staff examined) TECSUP is required as an institute of technology to follow a specific academic time schedule, namely the admission of students per career field only once per year. This means that technical students may only be admitted in the spring semester at the beginning of the Peruvian academic year, unless a particular career field (such as plant installation and maintenance) is not offered for spring admission.

TECSUP must also submit an annual report to the Ministry of Education on the TECSUP curriculum for the year in addition to biannual student profile information mentioned above. Appendix C

presents a copy of the curriculum report prepared by the Department of Instructions. Appendix D presents time schedules of academic year milestones for TECSUP through early 1987.

#### SUMMARY

Although the visit leading to this report lasted only two weeks, it was easy to see that significant progress has been made since December 1984. TECSUP is striving diligently to build its infra-structure and is doing it with a clear commitment to quality. Several outstanding developments include:

- o The new directors of Administration, Instruction and the Student Credit Fund bring high qualifications to their positions and have been designated as members of the Strategic Planning team.
- o TECSUP conducted a major publicity campaign to recruit students for the academic year beginning March 1985. The three-year program now has 72 first year students. Despite severe obstacles (lack of materials and supplies, upheavals associated with start-up of a technical training institution such as incomplete library, cafeteria, etc), TECSUP was able to retain 11 of the original 13 students enrolled in December 1984.
- o Acquisition of the Basic Four minicomputer and two MultiTech microcomputers will enable TECSUP to systematize record keeping and facilitate the implementation of administrative procedures recommended by Deloitte, Haskins & Sells. Without this increased automation TECSUP would require additional personnel to handle the procedures manually.

- o The expansion of this data processing capability will make available to TECSUP information which is readily accessible, frequently updated, and crucial for the strategic planning process as well as for administration of the organization.
- o A marked strength of the organization is the retention of highly trained and capable instructors. The five Peruvian engineers trained in Delaware continue with TECSUP as do the five German instructors funded by the German State of Baden-Wuerttemberg.
- o While course preparation has begun for the short courses, none have been offered. TECSUP deeply lamented the delays which prevented their offering of these courses. The latest target date for the offering offering of the first courses is September, 1985. This is contingent upon delivery of the prepared course materials and equipment from DTCC by July, 1985.
- o Additional coursework, equipment, and instructional supplies and materials are needed for both short- and long-term programs. The equipment currently available prevents the expansion of the student body to any number near the 560 discussed in the February report (for graduation of 30 students per career field; six career fields).

## RECOMMENDATIONS

As with any cooperative venture such as that between AID/Peru and TECSUP, follow through on mutual goals is essential. Therefore the following recommendations include those actions AID and TECSUP should consider:

1. AID and TECSUP should continue to expedite DTCC's delivery of the short courses and equipment on schedule. Continued maximum effort should be exerted to ensure that the short courses are offered in September.
2. AID should continue to support efforts to integrate the participation of the Peruvians, the Germans and the Americans into one coherent, cooperative plan. These efforts should build on what has already been created, including the plan developed by the Baden-Wuerttemberg experts during their initial conceptual stages as well as the recently structured strategic plan developed through the auspices of AID.
3. A study should be conducted to determine and prioritize current and anticipated data processing needs from the perspective of the total institution to assure cost savings by avoiding overlap or duplication of capabilities or capacities.

**Appendix A**

**AGUIRRE INTERNATIONAL Updated Scope of Work - 1985**

# AGUIRRE INTERNATIONAL TECHNICAL ASSISTANCE TO TECSUP

## UPDATED SCOPE OF WORK

June-February, 1985-86

### Background

In late 1984, AID contracted studies to analyze TECSUP, the Asociacion Promotora de Institutos Technologicos Superiores, a private Peruvian non-profit educational institution organized in May, 1984, in Lima, Peru. The Peruvian private sector and Governments of Mexico, West Germany and the United States provided donations. TECSUP inaugurated the physical plant on August 14, 1984, and enrolled its first full-time students. By December, 1984, these numbered 13.

One of the studies included a situation analysis and diagnostic assessment of the TECSUP program and produced short- and long-term recommendations including a strategic planning process for TECSUP. This proposed scope of work addresses follow-up assistance to TECSUP in implementing those recommendations, particularly the strategic planning process, and providing liaison and facilitation of work with the Delaware Technical Community College (DTCC), AID/Peru and AID/PRE.

### Objectives of Technical Assistance

1. Facilitate project management and coordination of U. S. technical assistance with the activities of TECSUP, Delaware Technical Community College, AID/Peru and AID/PRE. (Aguirre International is to be informed of all plans and development so that these can be integrated into the strategic planning process.)
2. Transfer to TECSUP the principles and methods underlying strategic planning and management/educational data systems. Refine and extend the strategic planning accomplished thus far to produce an institutional TECSUP Strategic Plan for 1986-1989, including a process for generating yearly operational plans. Train TECSUP staff, as needed, in the implementation of specific strategic planning components.
3. Provide assistance in refining the TECSUP/AID decision data system to produce on-going information for TECSUP, AID/PRE, and AID/Peru for the long-term planning and operations. (Design and pilot computerized data base of management activities, including agreements, tasks to be performed, materials developed, and evaluation process for this project based on the recommendations made in the December 1984 Aguirre report.)

JUNE 5-26, 1985

Edward Aguirre, Aguirre International President, will meet with AID, TECSUP and DTCC administrators in Washington to review and update status and roles of the contractor, DTCC, AID and TECSUP. The contractor will receive from DTCC, TECSUP and AID all information necessary to keep current on project developments so as to integrate it into the development of the TECSUP strategic and operational plans.

The contractor will meet with AID and TECSUP staff in Peru to update and review this scope of work, update the institutional analyses to include the Deloitte, et. al. report findings and recommendations. The General Director of TECSUP will identify for the contractor the key TECSUP staff who will have the authority and responsibility for planning, including the coordinator of the process, who will assist in the preparation of detailed specifications. These will be under the ultimate supervision of the General Director and involve current top level managers, with one serving as coordinator. A separate TECSUP planning office is not expected nor seen as appropriate at this time.

Summary of Tasks:

1. Review present Aguirre International (AI) workscope, determine AI/TECSUP process. Update, draft schedule of tasks, personnel, AI visits, dates.
2. Review AI, Deloitte et. al. reports, update changes which have occurred.
3. Develop a schedule of work to be accomplished regarding planning process, establish format, obtain from the TECSUP General Director the names of staff authorized and responsible for planning including the coordinator and key personnel participating in the process.
4. Update the information regarding the TECSUP organizational domain described in February, 1985, report by Dr. Aguirre.
5. Update general and specific TECSUP objectives.
6. Update current perception of basic assumptions about future developments which will affect TECSUP.

Aguirre International will present draft report of first-visit outcomes to TECSUP and AID-PERU before leaving Lima. Aguirre will return to Washington, D.C. and brief the project officer, AID/PRE and appropriate DTCC staff.

WORK TO BE ACCOMPLISHED BETWEEN JUNE AND AUGUST, 1985

BY AGUIRRE INTERNATIONAL

1. Update TECSUP STRATEGIC PLAN incorporating results of first visit into strategic and operational planning process.
2. Generate alternative models for consideration and analyses during second TECSUP visit: design computer-based spreadsheet models of alternative TECSUP outcomes, incomes, expenditures, offerings, clients -- systems necessary for institutional development.
3. Review/generate alternative courses of actions based on 1 and 2 for TECSUP consideration.

BY TECSUP

1. Review findings of June AI visit and implement agreed-upon follow-up.

SECOND VISIT -- AUG. 31 - SEPT. 21, 1985

1. Update TECSUP strategic plan to date, incorporate results of TECSUP analysis of current and anticipated markets and income opportunities, current and projected financial positions.
2. Update TECSUP strategic plan to date, incorporate results of TECSUP development of criteria and methods for selecting alternative courses of action, where necessary, to determine their effect upon TECSUP.
3. Review TECSUP identification of strategic alternative courses of actions, if appropriate. Present and integrate alternative models -- computer-based models of alternative TECSUP outcomes, incomes, expenditures, offerings, clients -- systems necessary for institutional development.
4. Review overall planning process with TECSUP staff, revise as necessary including timetables and operational plans in view of changes in basic assumptions.
5. Meet with TECSUP Board of Directors and advisory committees, as appropriate, to inform and obtain comments on progress to date.
6. Provide the training and materials necessary to develop staff capabilities for implementing and understanding the organizational plans and strategies. Training will include operation of management information system.
7. Assist with the final strategic plan feasibility check and outline steps for major plan review.

8. Meet with TECSUP planners to review progress to date and or to be accomplished by the November/December visit.

Contractor will brief TECSUP and AID/Peru prior to departure and will return to Washington, D.C. and brief Project Officer, AID/PRE, and appropriate DTCC staff.

#### WORK TO BE ACCOMPLISHED BETWEEN OCTOBER - NOVEMBER

##### BY AGUIRRE INTERNATIONAL

1. Review results of second trip and integrate into draft of TECSUP 1986-1989 strategic plan.
2. Finalize computer-based models integrating results of meetings with the executive director of TECSUP, the chief planner of the organization, and other planning personnel.
3. Prepare and obtain materials for final visit.

##### BY TECSUP

1. Review results of second Aguirre International visit and implement follow-up determined during second visit.

#### NOVEMBER-DECEMBER VISIT

1. Update TECSUP 1986-1989 STRATEGIC PLAN incorporating results of work done since second visit. Review and provide necessary training on the final step to produce the 1986-1989 TECSUP Strategic Plan. Contractor will obtain updated information on the status of TECSUP Management Systems and the accomplishments of AID-funded activities.
2. Conduct final interviews and develop draft final project report, including final TECSUP 1986-1989 STRATEGIC PLAN.

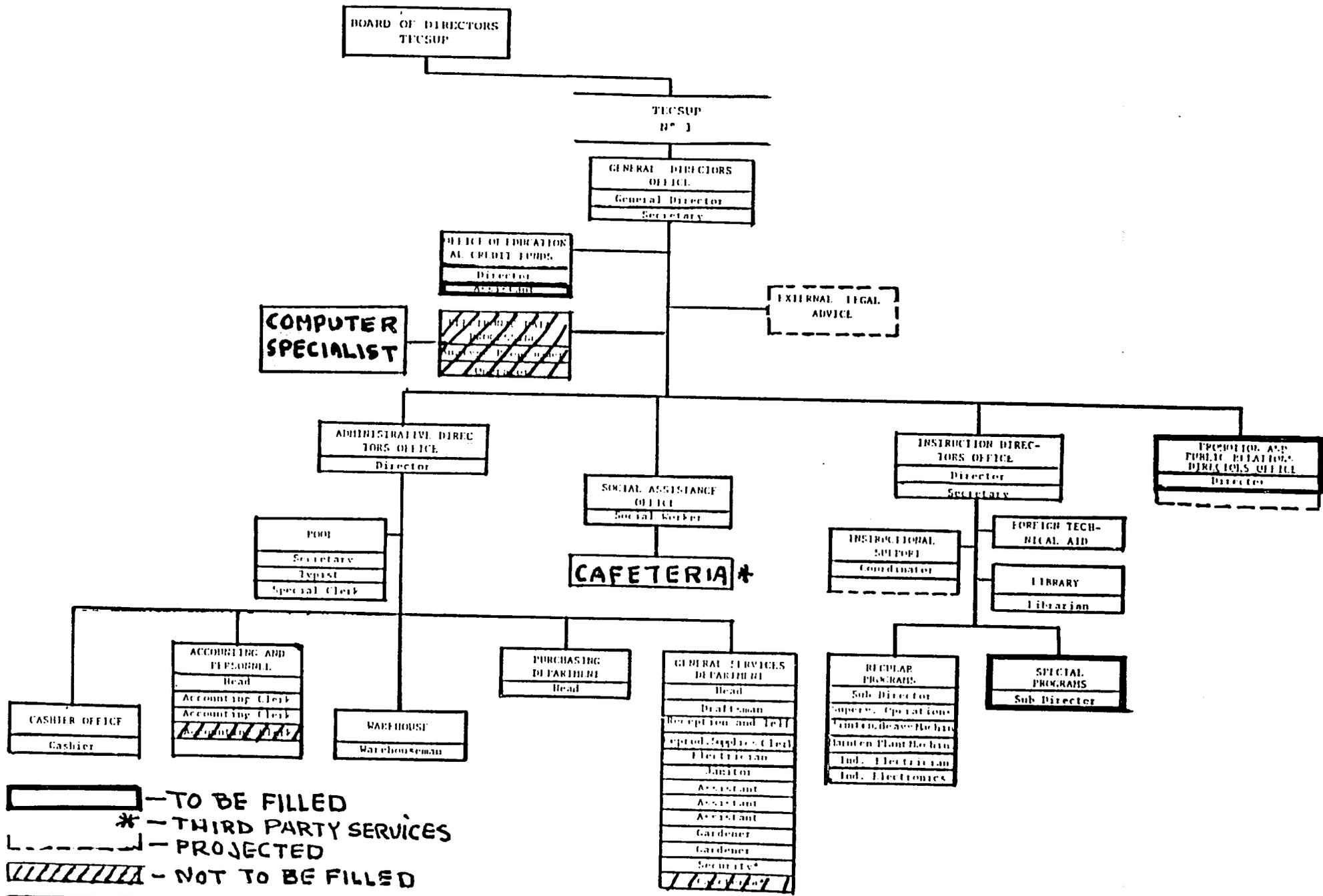
Contractor presents oral report and draft of final project report to TECSUP and AID/Peru.

Contractor visits Washington D.C. and presents draft of final project report and TECSUP 1986-1989 STRATEGIC PLAN.

After receiving feedback on draft report, the contractor completes and delivers final project report per contract.

**Appendix B**

**TECSUP Organizational Chart - June, 1985**



- TO BE FILLED
- \* - THIRD PARTY SERVICES
- - - - - PROJECTED
- NOT TO BE FILLED
- TO BE ADDED

22

**Appendix C**

**TECSUP Curriculum Report**

SEMESTRES	FORMACION GENERAL	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		TOTAL HS/SEM	TOTAL	
		T	P		T	P		T	P			
1	INGLES I	1	3	MATEMATICA I (REVISION)	4		DIBUJO TECNICO I		3	16	21	37
	TRANSFERENCIA DE TECNOLOGIA	2		FISICA	3	2	TECNOLOGIA Y TALLER I	4	8			
	LENGUAJE Y REDACCION I	1	1	TECNOLOGIA DE MATERIALES	1	2						
	EDUCACION FISICA Y DEPORTES		2									
2	INGLES II	1	3	MATEMATICA II (APLICADA)	4		DIBUJO TECNICO II		3	16	21	37
	LENGUAJE Y REDACCION II	1	1	FISICA	3	2	TECNOLOGIA Y TALLER II	4	8			
	EDUCACION FISICA Y DEPORTES		2	INTROD. AL MICROCOMPUTADOR	2		ELECTRICIDAD I	1	2			
3	INGLES III	1	3	MATEMATICA III (APLICADA)	4		LABORATORIO DE QUIMICA		6	16	21	37
	HOMBRE Y TECNICA I	2		QUIMICA GENERAL	4	5	ELECTRONICA I	2	3			
	EDUCACION FISICA Y DEPORTES		2	APLICACION DEL MICROCOMP.	3	2						
4	INGLES IV	1	3	QUIMICA ANALITICA	2	4	LAB. ANALISIS QUIMICOS	2	4	11	26	37
	HOMBRE Y TECNICA II	2		TRATAM. AGUA Y GEN. VAPOR	2	4	PROCESOS TECNOLOGICOS I	2	4			
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		5			
5	INGLES V	1	3	INSTRUM. DE CONTROL INDUST.	2	4	MAQUINAS BASICAS	3	6	18	19	37
	GEO ECONOMIA PERUANA I	2		MANT. DE MAQUINARIA	4		PROCESOS TECNOLOGICOS II	2	6			
	ORGANIZACION INDUSTRIAL I	2										
	EDUCACION CIVICA	2										
6	INGLES VI	1	3				MECANISMOS FLUIDODINAMICOS	2	6	13	24	37
	GEO ECONOMIA PERUANA II	2					PROCESOS TECNOLOGICOS III	2	6			
	CONFERENCIAS CULTURALES	2										
	ORGANIZACION INDUSTRIAL II	2					PRACTICA INDUSTRIAL		9			
	FORMACION PREMILITAR	2										
		T	P		T	P		T	P			
		28	28		38	25		24	79	90	132	222

TECSUP  
LIMA

PLAN DE : SUPERVISION DE OPERACIONES  
ESTUDIOS

SEME	FORMACION GENERAL	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		TOTAL HS/SEM		TOTAL
		T	P		T	P		T	P	T	P	
1	INGLES I	1	3	MATEMATICA I (REVISION)	4		DIBUJO TECNICO I		3	18	19	37
	TRANSFERENCIA DE TECNOLOGIA	2		FISICA/QUIMICA I	3	2	TECNOLOGIA Y TALLER I	6	6			
	LENGUAJE Y REDACCION I	1	1	TECNOLOGIA DE MATERIALES	1	2						
	EDUCACION FISICA Y DEPORTES		2									
2	INGLES II	1	3	MATEMATICA II (APLICADA)	4		DIBUJO TECNICO II		3	20	17	37
	LENGUAJE Y REDACCION II	1	1	FISICA/QUIMICA II	3	2	TECNOLOGIA Y TALLER II	4	4			
	EDUCACION FISICA Y DEPORTES	2		INTROD. AL MICROCOMPUTADOR	2		ELECTRICIDAD I	2	2			
				TECNOLOGIA MATERIALES	1	2						
3	INGLES III	1	3	MATEMATICA III (APLICADA)		2	DIBUJO TECNICO III		3	13	24	37
	HOMBRE Y TECNICA I	2		APLICACION DEL MICROCOMP.	3	2	COMPRESORES AIRE	2	4			
	EDUCACION FISICA Y DEPORTES		2				MOT. COMB. INTERNA I	2	4			
							ELECTRONICA I	3	4			
4	INGLES IV	1	3	TERMODINAMICA APLICADA	2		MOT. COMB. INTERNA II	2	6	10	27	37
	HOMBRE Y TECNICA II	1		MANTENIMIENTO DE MAQUINARIA	2	2	MAQ. PESADA Y SU PROGRAM. I	2	6			
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		6			
5	INGLES V	1	3				MOT. COMB. INTERNA III	2	4	19	18	37
	GEO ECONOMIA PERUANA I	2		MANTENIMIENTO DE MAQUINARIA	2	3	MAQ. PESADA Y SU PROGRAM. II	4	4			
	ORGANIZACION INDUSTRIAL	2					MECANISMOS FLUIDODINAMIC. I	4	4			
	EDUCACION CIVICA	2										
6	INGLES VI	1	3				DIAGNOSTICO DE FALLAS	2	3	15	22	37
	GEO ECONOMIA PERUANA II	2					MAQ. PESADA Y SU PROG. III	2	3			
	CONFERENCIAS CULTURALES	2					MECANISMOS FLUIDODINAMIC. II	2	4			
	ORGANIZACION INDUSTRIAL	2										
	FORMACION PREMIJIA	2					PRACTICA INDUSTRIAL		9			
		T	P		T	P		T	P			
		29	26		31	19		35	82	95	127	222

TECSUP PLAN DE : MANTENIMIENTO DE MAQUINARIA PESADA (PARA MOVIMIENTO DE TIERRA)  
LIMA ESTUDIOS

SEME	FORMACION GENERAL	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		TOTAL HS/SEM		TOTAL
		T	P		T	P		T	P	T	P	
1	INGLES I	1	3	MATEMATICA I (REVISION)	4		DIBUJO TECNICO I		3	18	29	37
	TRANSFERENCIA DE TECNOLOGIA	2		FISICA/QUIMICA I	3	2	TECNOLOGIA Y TALLER I	6	6			
	LENGUAJE Y REDACCION I	1	1	TECNOLOGIA DE MATERIALES	1	2						
	EDUCACION FISICA Y DEPORTES		2									
2	INGLES II	1	3	MATEMATICA II (APLICADA)	4		DIBUJO TECNICO II		3	17	20	37
	LENGUAJE Y REDACCION II	1	1	FISICA/QUIMICA II	1	2	TECNOLOGIA Y TALLER II	6	6			
	EDUCACION FISICA Y DEPORTES		2	INTROD. AL MICROCOMPUTADOR	2		ELECTRICIDAD I	2	3			
3	INGLES III	1	3	MATEMATICA III (APLICADA)	4		DIBUJO TECNICO III		3	16	21	37
	HOMBRE Y TECNICA I	2		APLICACION DEL MICROCOMP.	3	2	MECANISMOS FLUIDODINAMICOSI	4	8			
	EDUCACION FISICA Y DEPORTES		2				ELECTRONICA I	2	3			
4	INGLES IV	1	3	TERMODINAMICA APLICADA	2	2	MAQUINAS BASICAS	2	6	10	27	37
	HOMBRE Y TECNICA II	1		MANT. DE MAQUINARIA I	2	2	MECANISMOS FLUIDODINAMICOSI	2	6			
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		6			
5	INGLES V	1	3	INSTRUMENTOS DE CONTROL	2	4	MOT. COM. INTERNA I	2	6	16	21	37
	GEO ECONOMIA PERUANA I	2		MANT. DE MAQUINARIA II	3	2	MAQUINARIA PROCESO I	2	6			
	ORGANIZACION INDUSTRIAL	2										
	EDUCACION CIVICA	2										
6	INGLES VI	1	3				MOT. COMB. INTERNA II	2	6	13	24	37
	GEO ECONOMIA PERUANA II	2					PRACTICA INDUSTRIAL		9			
	CONFERENCIAS CULTURALES	2										
	ORGANIZACION INDUSTRIAL	2					MAQUINARIA PROCESO II	2	6			
	FORMACION PREMILITAR	2										
		T	P		T	P		T	P			
		27	28		31	18		32	86	90	132	222

TECSUP  
LIMA

PLAN DE : MANTENIMIENTO DE MAQUINARIA DE PLANTA  
ESTUDIOS

SEMESTRES	FORMACION GENERAL	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		TOTAL HS/SEMA		TOTAL
		T	P		T	P		T	P	T	P	
1	INGLES I	1	3	MATEMATICA I	2		CIRCUITOS ELECTRICOS I	3	2	11	26	37
	TRANSFERENCIA DE TECNOLOGIA	2		FISICA/QUIMICA I	1	2	PROCESAMIENTO DE MATERIAL. I		2			
	LENGUAJE Y REDACCION I	1	1	DIBUJO TECNICO		2	TECNOLOGIA Y TALLER I		5			
	EDUCACION FISICA Y DEPORTES		2	TECNOLOGIA DE MATERIALES	1	1	TECNOLOGIA ELECTRICA I		6			
2	INGLES II	1	3	MATEMATICA II	2		CIRCUITOS ELECTRICOS II	3	3	13	24	37
	EDUCACION FISICA Y DEPORTES	2		FISICA/QUIMICA II	1	2	PROCESAMIENTO DE MATER. II		2			
	INTRODUCCION AL MICROCOMP.	2		TECNOLOGIA DE MATERIALES	1	1	TECNOLOGIA Y TALLER II		6			
	LENGUAJE Y REDACCION II	1	1				TECNOLOGIA ELECTRICA II.		6			
3	INGLES III	1	3	MATEMATICA III (APLICADA)		2	ELECTRONICA I	4	2	16	21	37
	HOMBRE Y TECNICA	2		CONTROL I	3		MAQUINAS ELECTRIC/INSTAL. I	3	2			
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		8			
	APLICACION DEL MICROCOMP.	3	2									
4	INGLES IV	1	3	MATEMATICA IV (APLICADA)		2	ENERGIA	2		13	24	37
	HOMBRE Y TECNICA	1		MAQUINAS ELECTRICAS	4	3	ELECTRONICA II	3	3			
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		9			
	INTROD. AL PROCES. DE DATOS	2	2									
5	INGLES V	1	3	MICROPROCESADORES	2		MAQUINAS ELECTR. /INSTAL. II	6	3	20	17	37
	GEO ECONOMIA PERUANA	2		MEDIDAS ELECTRICAS	2	1	TELECOMUNICACIONES I	3	2			
	ORGANIZACION INDUSTRIAL	2					PRACTICA INDUSTRIAL		8			
	EDUCACION CIVICA	2										
6	INGLES VI	1	3	INSTALACIONES ELECTRICAS	2	1	CONTROL Y REGULACION	5	3	20	17	37
	GEO ECONOMIA PERUANA	2		CONTROL II	2	2	TELECOMUNICACIONES II	2	2			
	CONFERENCIAS CULTURALES	2					PRACTICA INDUSTRIAL		6			
	ORGANIZACION INDUSTRIAL	2										
	FORMACION PREMILITAR	2										
		T	P		T	P		T	P			
		36	30		23	19		34	80	93	129	222

SEMESTR	FORMACION GENERAL	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		TOTAL HS/SEM		TOTAL
		T	P		T	P		T	P	T	P	
1	INGLES I	1	3	MATEMATICA I	2		CIRCUITOS ELECTRICOS I	3	2	11	26	37
	TRANSFERENCIA DE TECNOLOGIA	2		FISICA/QUIMICA I	1	2	PROCESAMIENTO DE MATERIALES		2			
	LENGUAJE Y REDACCION I	1	1	DIBUJO TECNICO		2	TECNOLOGIA ELECTRICA I		5			
	EDUCACION FISICA Y DEPORTES		2	TECNOLOGIA DE MATERIALES I	1	1	TECNOLOGIA Y TALLER I		6			
2	INGLES II	1	3	MATEMATICA II	2		CIRCUITOS ELECTRICOS II	3	3	13	24	37
	EDUCACION FISICA Y DEPORTES	2		FISICA/QUIMICA II	1	2	PROCESAMIENTO DE MATERIALES		2			
	INTRODUCCION AL MICROCOMP.	2		TECNOLOGIA DE MATERIALES II	1	1	TECNOLOGIA ELECTRICA II		6			
	LENGUAJE Y REDACCION II	1	1				TECNOLOGIA Y TALLER II		6			
3	INGLES III	1	3	MATEMATICA III (APLICADA)		2	ELECTRONICA I	4	2	16	21	37
	HOMBRE Y TECNICA I	2		CONTROL	3		MAQUINAS ELECTR. /INSTAL. I	3	2			
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		8			
	APLICACION DEL MICROCOMP.	3	2									
4	INGLES IV	1	3	MATEMATICA IV (APLICADA)		2	ELECTRONICA II	3	2	15	22	37
	HOMBRE Y TECNICA II	1		MAQUINAS ELECTRICAS	5	3	TELECOMUNICACIONES I	3				
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		8			
	INTROD. AL PROCESAM. DE DAT.	2	2									
5	INGLES V	1	3	MICROPROCESADORES I	2		ELECTRONICA III	1	2	20	17	37
	GEO ECONOMIA PERUANA I	2		CONTROL Y REGULACION	2	1	TECNICA DIGITAL I	2				
	ORGANIZACION INDUSTRIAL I	2					MAQUINAS ELECTRICAS/INST. II	6	3			
	EDUCACION CIVICA	2					PRACTICA INDUSTRIAL		8			
6	INGLES VI	1	3	MICROPROCESADORES II	2	3	ELECTRONICA IV	2	4	16	21	37
	GEO ECONOMIA PERUANA II	2					TECNICA DIGITAL II	2	2			
	CONFERENCIAS CULTURALES	2					TELECOMUNICACIONES II	1	2			
	ORGANIZACION INDUSTRIAL II	2					PRACTICA INDUSTRIAL		7			
		T	P		T	P		T	P			
		36	30		22	19		33	82	91	131	222

TECSUP PLAN DE : ELECTRONICA INDUSTRIAL  
LIMA ESTUDIOS

29

SEMESTR

SEMESTR	FORMACION GENERAL	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		FORMACION TECNOLOGICA	HORAS SEMA.		TOTAL HS/SEM		TOTAL		
		T	P		T	P		T	P	T	P			
1	INGLES I	1	3	MATEMATICA I	2		CIRCUITOS ELECTRICOS I	3	2	12	25	37		
	TRANSFERENCIA DE TECNOLOGIA	2		FISICA/QUIMICA I	1	2	PROCESAMIENTO DE MATERIALES	1	1					
	LENGUAJE Y REDACCION I	1	1	DIBUJO TECNICO		2	TECNOLOGIA Y TALLER I		6					
	EDUCACION FISICA Y DEPORTES		2	TECNOLOGIA DE MATERIAL	1	1	TECNOLOGIA ELECTRICA I		5					
2	INGLES II	1	3	MATEMATICA II	2		CIRCUITOS ELECTRICOS II	3	2	12	25	37		
	EDUCACION FISICA Y DEPORTES		2	FISICA/QUIMICA II	1	2	PROCESAMIENTO DE MATLS. II	1	1					
	INTRODUCCION AL MICROCOMP.	2		TECNOLOGIA DE MATERIALES	1	1	TECNOLOGIA Y TALLER II		7					
	LENGUAJE Y REDACCION II	1	1				TECNOLOGIA ELECTRICA II		6					
3	INGLES III	1	3	MATEMATICA III (APLICADA)		2	ELECTRONICA I	4	2	16	21	37		
	HOMBRE Y TECNICA	2		ANALISIS DE SISTEMAS I	3		MAQUINAS ELECTRICAS	3	2					
	EDUCACION FISICA Y DEPORTES		2				PRACTICA INTERNA		8					
	APLICACION DEL MICROCOMP.	3	2											
4	INGLES IV	1	3	MATEMATICA IV (APLICADA)		2	ELECTRONICA II	3	2	15	22	37		
	HOMBRE Y TECNICA			ANALISIS DE SISTEMAS II			TELECOMUNICACIONES	3	2					
	EDUCACION FISICA Y DEPORTES		2				SIST. DE PROCES. DE DATOS I	2	1					
	INTROD. AL PROCES. DE DATOS	2	2				PRACTICA INTERNA		8					
5	INGLES V	1	3	MICROPROCESADORES I	2		TECNICA DIGITAL I	2		18	19	37		
	GEO ECONOMIA PERUANA	2		PROGRAMACION I	2	3	SIST. DE PROCES. DE DATOS II	3	4					
	ORGANIZACION INDUSTRIAL	2					ALMACENAMIENTO DE DATOS	2	1					
	EDUCACION CIVICA	2					PRACTICA INDUSTRIAL		8					
6	INGLES VI	1	3	MICROPROCESADORES II	2	3	TECNICA DIGITAL II	2	2	16	21	37		
	GEO ECONOMIA PERUANA	2		PROGRAMACION II	1	3	SIST. DE PROCES. DE DATOS III	2	4					
	CONFERENCIAS CULTURALES	2					PRACTICA INDUSTRIAL		6					
	ORGANIZACION INDUSTRIAL	2												
FORMACION PREMILITAR														
		T	P			T	P			T	P			
		34	32			21	21			34	80	89	133	222

TECSUP PLAN DE : INFORMATICA ESTUDIOS

## 6. ASPECTOS ACADEMICOS Y ADMINISTRATIVOS

### 6.1 ASPECTOS ACADEMICOS

Los seis Programas que ofrecerá el Instituto tienen una estructura curricular básica similar a la aprobada por el Ministerio de Educación para los Institutos Superiores Tecnológicos del Estado.

En todas estas especialidades el TECSUP sostendrá programas regulares; y además, paralelamente, cursos cortos de actualización y capacitación de técnicos ya graduados, y de autodidáctas con experiencia de varios años.

Los programas para los cursos cortos de actualización serán desarrollados con la asistencia técnica del Tecnológico de Delaware.

#### DURACION DE LOS ESTUDIOS

Para cumplir los objetivos docentes, los programas proyectados tienen una duración de seis (6) semestres, con 20 semanas por semestre.

El Instituto solicita la categoría de Experimental, con el fin de operar con la flexibilidad necesaria para perfeccionar los programas no tradicionales que son necesarios para lograr una docencia acorde con las innovaciones introducidas en los instrumentos y las máquinas.

#### CARGA HORARIA

Las cargas horarias establecidas por el Instituto para los Planes de Estudio son :

- Nº de semanas por Semestre:	20
- Carga Horaria Semanal :	37 Hrs.
- Carga Horaria Semestral : (20 Semanas por Semestre)	740 Hrs.
- Carga Horaria Total de las Carreras de 6 Semestres :	4,440 Hrs.

#### ESTRUCTURA CURRICULAR BASICA

Los perfiles básicos fueron elaborados con el concurso de Comisiones Asesoras, formadas por profesionales activos en la industria, para darles el contenido más adecuado a las tareas requeridas por las actividades productivas nacionales.

Estos perfiles fueron pasados a programas preliminares por la Dirección de Perfiles y Programas del CONALEP Mexicano, organismo para-estatal creado en 1978, con experien

cia ganada en la implementación de 139 planteles, con más de 30 especialidades, en todo el país.

Ellos fueron luego revisados por un comité de expertos en docencia técnica del Estado de Baden Wuerttemberg.

### COMPONENTES

Clasificando los cursos según su grado de especialización se tiene :

#### Formación General :

Comprende las siguientes asignaturas y actividades, comunes y obligatorias para los seis programas :

- Lenguaje y Redacción
- Hombre y Técnica
- Geo-Economía Peruana
- Matemáticas
- Educación Cívica
- Formación Pre-Militar
- Educación Física y Deportes
- Conferencias Culturales

La Formación General totaliza aproximadamente el 15% del tiempo total de estudios.

#### Formación Tecnológica

Comprende asignaturas de Ciencias Aplicadas y de Tecnología.

En estos dos grandes grupos existen asignaturas comunes a las seis especialidades, que son:

##### Ciencias Aplicadas :

- Física
- Química
- Matemáticas Aplicadas
- Tecnología de Materiales
- Procesamiento de Materiales
- Transferencia de Tecnología
- Organización Industrial

##### Tecnología :

- Dibujo Técnico
- Inglés Técnico
- Introducción y Aplicación del Microcomputador
- Tecnología y Taller

Los programas del Instituto están estructurados con el propósito de que, además de los cursos de Formación General, los técnicos de las seis especialidades compartan una base común en campos como el procesamiento de datos, organización industrial, y transferencia de tecnología, que les permitan trabajar con criterios de costos y eficiencia, usando las técnicas más modernas.

Las asignaturas por especialidades serán:

01. Supervisión de Operaciones

- Electricidad / Electrónica I
- Química Analítica
- Tratamiento de Agua y Generación de Vapor
- Instrumentos de Control Industrial
- Procesos Tecnológicos I, II y III
- Máquinas Básicas
- Mecanismos Fluidodinámicos
- Mantenimiento de Maquinaria

02. Mantenimiento de Maquinaria Pesada  
(de movimiento de tierras)

- Electricidad / Electrónica I
- Termodinámica Aplicada
- Mecanismos Fluidodinámicos I y II
- Compresores de Aire
- Motores de Combustión Interna I, II y III
- Maquinaria Pesada y su Programación I, II y III
- Mantenimiento de Maquinaria

03. Mantenimiento de Maquinaria de Planta

- Electricidad / Electrónica I
- Termodinámica Aplicada
- Mecanismos Fluidodinámicos I y II
- Máquinas Básicas
- Motores de Combustión Interna I y II
- Maquinaria de Proceso I y II
- Mantenimiento de Maquinaria

04. Mantenimiento Electrotécnico Industrial

- Control I y II
- Máquinas Eléctricas
- Microprocesadores
- Circuitos Eléctricos I y II
- Tecnología Eléctrica I y II
- Electrónica I y II
- Máquinas Eléctricas / Instalaciones I y II
- Energía
- Telecomunicaciones I y II
- Control y Regulación

05. Mantenimiento Electrónico Industrial

- Control
- Máquinas Eléctricas
- Microprocesadores I y II

- Control y Regulación
- Circuitos Eléctricos I y II
- Tecnología Eléctrica I y II
- Electrónica I, II, III y IV
- Máquinas Eléctricas / Instalaciones I y II
- Telecomunicaciones I y II
- Técnico Digital I y II

06. Técnico en Informática

- Análisis de Sistemas I y II
- Microprocesadores I y II
- Programación I y II
- Circuitos Eléctricos I y II
- Tecnología Eléctrica I y II
- Electrónica I y II
- Máquinas Eléctricas
- Telecomunicaciones
- Sistema de Procesamiento de Datos I, II y III
- Técnica Digital I y II
- Almacenamiento de Datos

La Formación Tecnológica totaliza aproximadamente el 85% del tiempo total de estudios, no incluyéndose en el cálculo de este porcentaje la práctica profesional, según las normas establecidas.

- Control y Regulación
- Circuitos Eléctricos I y II
- Tecnología Eléctrica I y II
- Electrónica I, II, III y IV
- Máquinas Eléctricas / Instalaciones I y II
- Telecomunicaciones I y II
- Técnico Digital I y II

06. Técnico en Informática

- Análisis de Sistemas I y II
- Microprocesadores I y II
- Programación I y II
- Circuitos Eléctricos I y II
- Tecnología Eléctrica I y II
- Electrónica I y II
- Máquinas Eléctricas
- Telecomunicaciones
- Sistema de Procesamiento de Datos I, II y III
- Técnica Digital I y II
- Almacenamiento de Datos

La Formación Tecnológica totaliza aproximadamente el 85% del tiempo total de estudios, no incluyéndose en el cálculo de este porcentaje la práctica profesional, según las normas establecidas.

**Appendix D**

**TECSUP Academic Calendar**

CALENDARIO DE ACTIVIDADES

DEL SEMESTRE 1985 - I

15 de Abril	Inicio de Clases
17 al 22 Junio	Primer Examen Parcial
22 al 26 Julio	Exámenes de Cargo (alumnos del 3er Semestre)
23 de Agosto	Fin de Clases
26 al 31 Agosto	Segundo Examen Parcial
02 al 06 Setiembre	Exámenes de Recuperación 1985-I Matrícula para Semestre 1985 - II
09 de Setiembre	Inicio de Clases Semestre 1985 - II

- Las Prácticas en Aulas, Laboratorios y Talleres, son programadas por el Profesor del Curso respectivo.
- Durante la semana del Primer Examen Parcial, se suspenderán las clases y Prácticas en Aulas y Laboratorios.
- Las Prácticas de Taller seguirán desarrollándose normalmente.

  
DIRECTOR DOCENTE

Lima, 20 de Mayo de 1985

MR/dl

## CALENDARIO GENERAL DE ACTIVIDADES 1985-1986

- 2 y 3 de Abril 1985 : Matrícula Semestre 1985-I
- 8 de Abril al 23 de Agosto 1985 : Semestre 1985/I
- 26 de Agosto al 30 de Agosto 1985: Vacaciones - Evaluaciones Finales
- 02 de Setiembre al 6 de Set. 1985: Vacaciones, Ex. de Recuperación 1985-I  
Horarios, Matrícula, Prep. sigte. Semestre
- 09 de Setiembre al 30 de Ene.1986: Semestre 1985-II
- 03 de Febr. al 28 de Febrero 1986: Vacaciones Generales-
- 3 de Marzo al 7 de Marzo 1986 : Examen de Recuperación 1985-II
- 3 de Marzo al 31 de Marzo 1986 : Inscripción, Examen de Admisión, Evaluación  
Socio-Económica, Matrícula, Horarios, Pre-  
paración de clases para siguiente Semestre.
- 12 de Abril al 15 de Agosto 1986 : Semestre 1986-I
- 18 de Agosto al 22 de Agosto 1986: Vacaciones, Evaluaciones Finales
- 25 de Agosto al 5 de Set. 1986 : Vacaciones, Examen de Recuperación 1986-I  
Preparación segundo Semestre, Horarios, -  
Matrícula.
- 08 de Setiembre 1986 al 30 Ene.87: Semestre 1986-II
- 02 de Febr. al 27 de Febrero 1987: Vacaciones Generales,
- 02 de Marzo al 06 de Marzo 1987 : Examen de Recuperación 1986-II
- 2 de Marzo al 31 de Marzo 1987 : Inscripción, Examen de Admisión, Evaluación  
Socio-Económica, Matrícula, Horarios, Pre-  
paración clases siguiente Semestre.

NOTA: El Calendario Analítico de ejecución de cada semestre será confeccionado en su oportunidad.

Lima, 22 de Marzo de 1985

