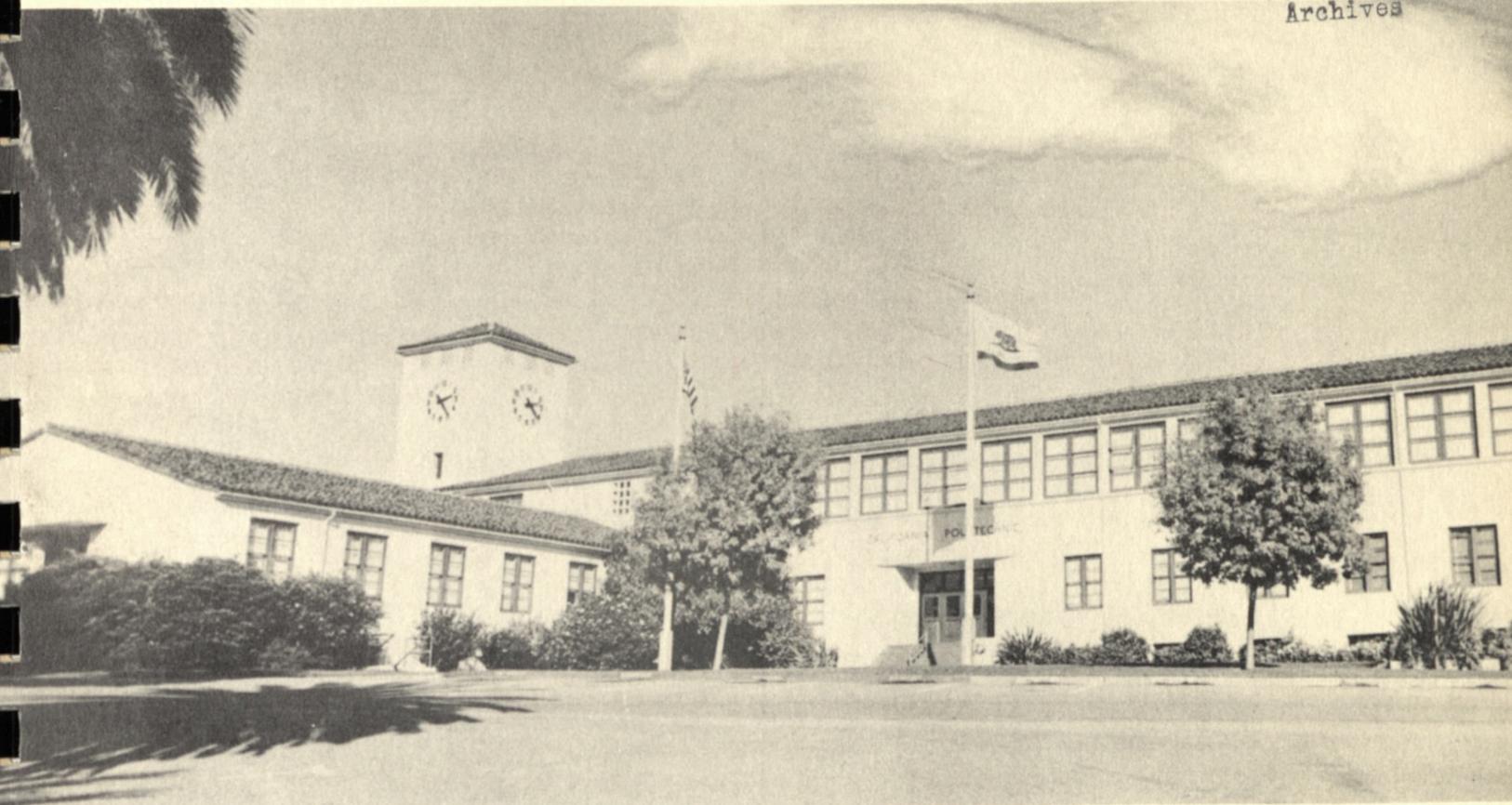


**1957-58 ANNUAL REPORT**

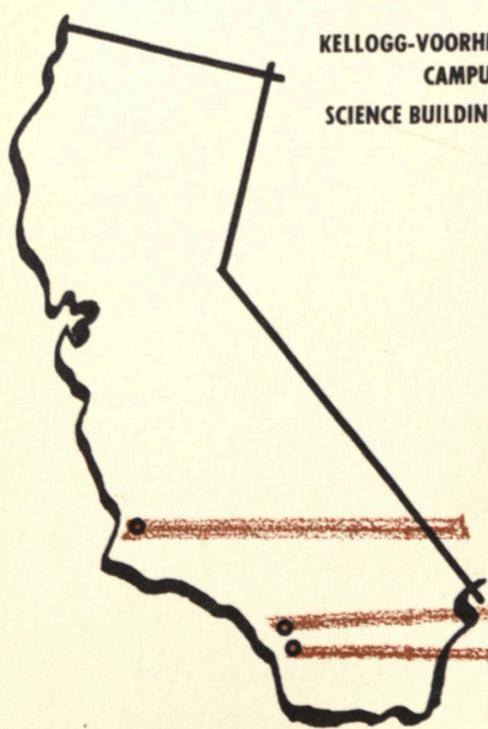
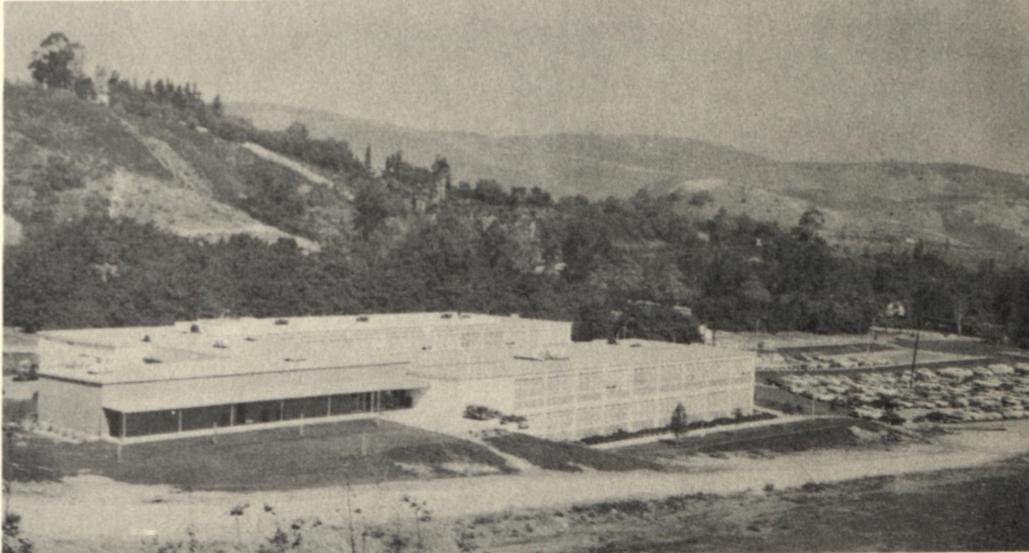
# CALIFORNIA STATE POLYTECHNIC COLLEGE

Archives



SAN LUIS OBISPO  
CAMPUS  
ADMINISTRATION BUILDING

KELLOGG-VOORHIS  
CAMPUS  
SCIENCE BUILDING



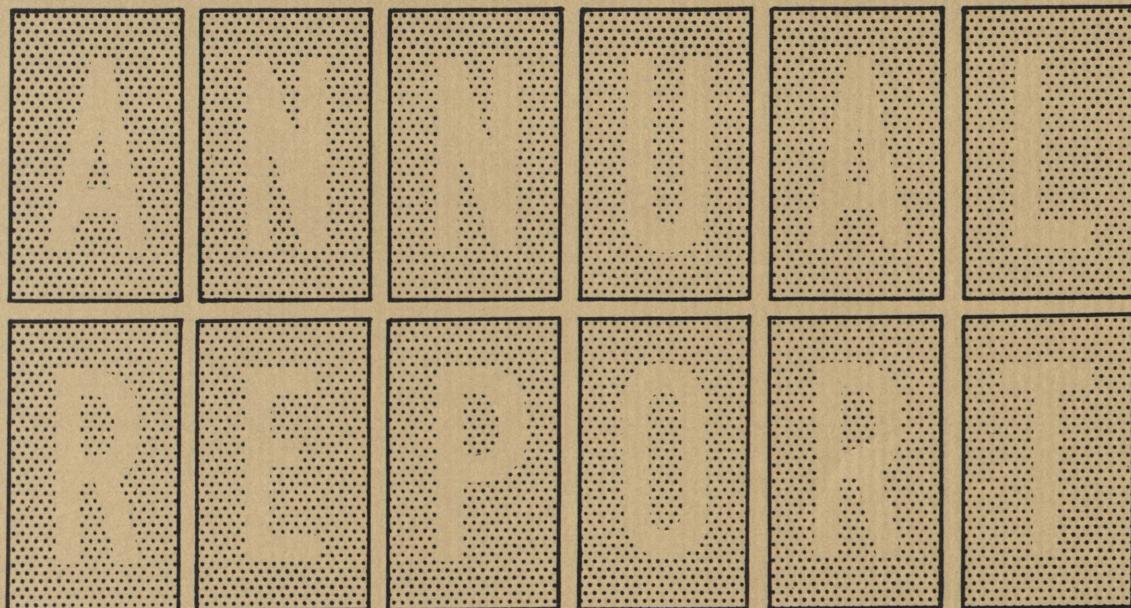
SAN LUIS OBISPO

SAN DIMAS

POMONA

STATEWIDE IN ENROLLMENT ----- STATEWIDE IN SERVICE

CALIFORNIA STATE  
POLYTECHNIC COLLEGE  
1957-1958



to the  
CALIFORNIA STATE BOARD OF EDUCATION

and the  
STATE DEPARTMENT OF EDUCATION

may  
1958

## TABLE OF CONTENTS

(Note: Kellogg-Voorhis campus data is not a separate section of this Report but follows San Luis Obispo campus data under the respective sections).

FOREWORD	1
ENROLLMENT	2-9
DEGREES and CERTIFICATES GRANTED	10
FACULTY	12
CONSTRUCTION PROGRAMS	13-15
THE COLLEGE FOUNDATION	16
HOUSING	18
SPECIAL SERVICES	19-20
STUDENT PERSONNEL	
Co-Curricular Activities	22-23
Women Students	24
Counseling and Testing	25
Student Health Service	26
Financial Aids	27
Placement Service	28-29
INSTRUCTION	
Objectives and Philosophy	30-31
New Curricula	32
Library and Audio-Visual	33
INSTRUCTIONAL DIVISIONS	
Agricultural Division	34-38
Engineering Division	39-42
Arts and Sciences Division	44-49

## ILLUSTRATIONS

MAP - Cal Poly enrollment parallels State population distribution	3
TABLE - Place of legal residence of students, by counties	5
CHART - Relationship of graduates' first jobs to Cal Poly training	11
PHOTO PAGE - Typical Student Projects ("Learn by Doing")	17
MAP - Cal Poly's services are Statewide	21
CHARTS - Engineering enrollment; aptitude of new students	43
CHART - Growth of Arts & Sciences majors	45
MAP - Cal Poly Education Department affects wide area of the State	47

*Julian A. Voorhis*  
Julian A. Voorhis  
President

California State Polytechnic College is familiar with changing patterns in education and is aware of the many challenging problems of enrollment, inadequate facilities and financial burdens that confront most institutions of learning.

The national dilemma in this respect is noted in the Second Report of the President's Committee on Education Beyond the High School:

"Our colleges and universities are expected by the American public to perform something close to a miracle in the next 10 to 15 years. They are called upon to provide education of a continually improving quality to a far larger number of students...But our institutions of higher learning, despite their remarkable achievements in the past, are in no shape today to meet the challenge. Their resources are already strained; their quality standards are even now in jeopardy, and their projected plans fall far short of the indicated need."

This impels us to pause a moment and reflect on where we stand. What is being done to offset our strained resources? How are we meeting the challenge called for by the miracle we are asked to perform? Are we engaging in self-appraisal objectively to determine whether standards are improving? In short, where are we going?

This Annual Report is by no means a full and complete picture of all problems, achievements, projections and solutions. It is hoped, however, that it will be of help in presenting an understanding in certain areas of education in California for which Cal Poly assumes stewardship.

It is clear to Cal Poly as it must be clear to other State Colleges that a detailed recital of all educational problems would serve little. But an interim report such as this might call attention to situations that have local answers. Our faculty, for example, is aware that heavy workloads sometimes are necessary to preserve continuity of instruction. They know that we may have to adjust our student-teacher ratios and that lack of adequate facilities requires compromises. Faculty and staff alike realize the necessity of utilizing their time for maximum efficiency as they actively seek means of using classroom and laboratory space to full advantage since enrollment outstrips instructional facilities. They know that Cal Poly's enabling act was provided by the legislature in 1901 and that our job is to continually implement the long-standing philosophy of the college. Such implementation may require changes in customary methods and conventional approaches and, if so, experiments must be tried for better results. Some of our problems, while not local in origin, may well be attacked locally--and that we are doing.

Whatever accomplishments are noted in this Report for Cal Poly--and there are significant ones--co-credit must be given to the State Board of Education, the State Department of Education and its administrators, the State Legislature which is burdened with resolving difficult financial matters and budgetary problems and to other State officials who so often lend advice and counsel. To all these, Cal Poly is grateful and gives thanks for their cooperation and understanding.

This Report, then, is a summary of what Cal Poly has done this year in contributing to the pattern that is developing for the crucial future.

*Julian A. McPhee*  
JULIAN A. MCPHEE  
President

4040

## ENROLLMENT

753

San Luis  
ObispoCalifornia State Polytechnic College  
Distribution pattern is the State's PopulationKellogg  
Voorhis

"Ready or Not, Here We Come!"

The heading cry of the familiar children's game is today's forewarning of fast-increasing school enrollments everywhere. It applies to California State Polytechnic College at both the San Luis Obispo and the Kellogg-Voorhis campuses.

Registration of regular full-time students at the San Luis Obispo campus for the Fall Quarter, 1957, was 4040 and at the Kellogg-Voorhis campus the total was 753. The combined total of 4793 represents a 12.2 per cent increase over the previous Fall Quarter enrollment.

Additional enrollment of limited students (6 or less units) totaled 161 at the San Luis Obispo campus; 106 of these were women. Limited student enrollment totaled 45 at the Kellogg-Voorhis campus.

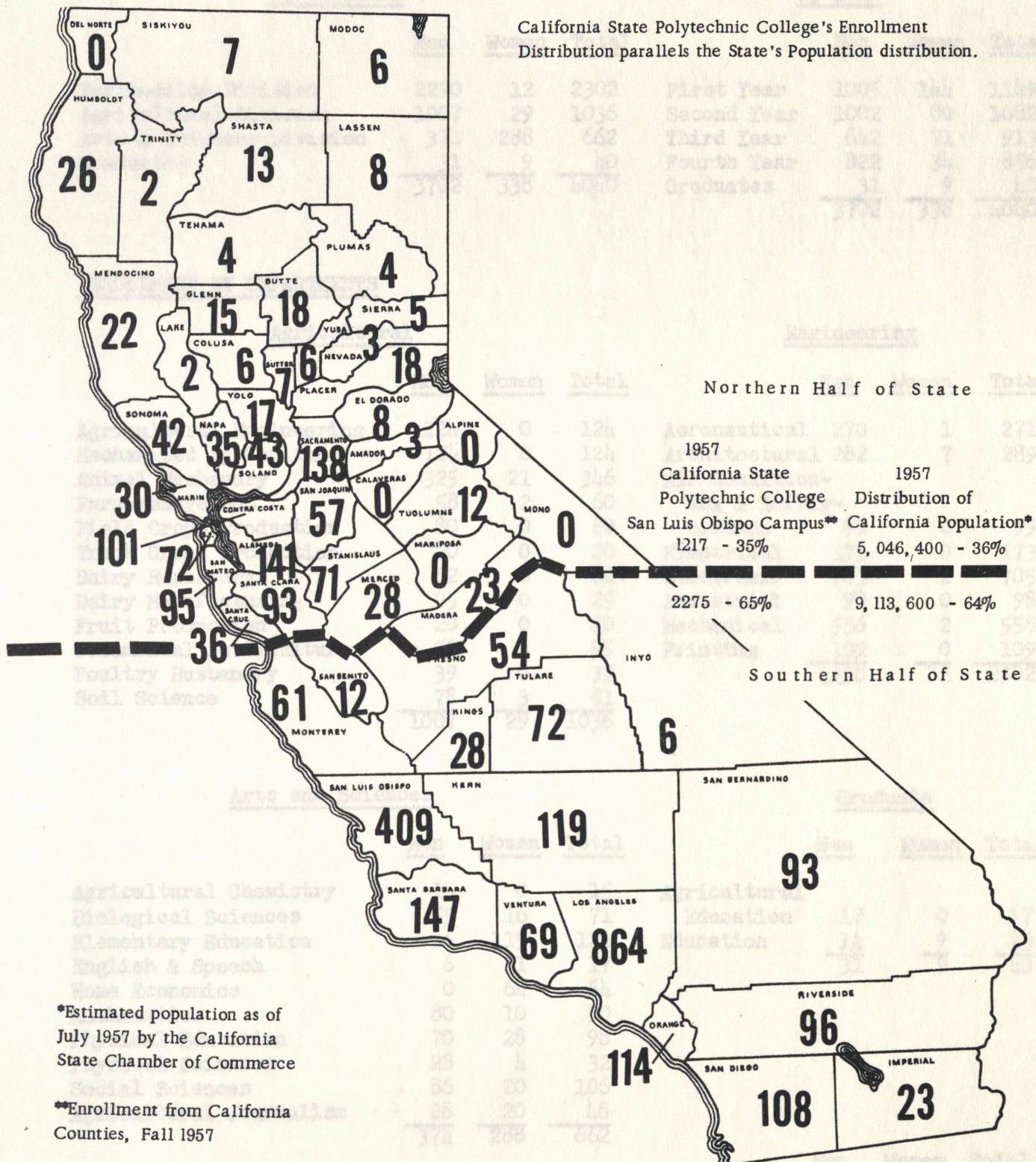
The statewide character of Cal Poly's service area is strongly indicated in a geographical-distribution map on the next page. (The map applies only to the San Luis Obispo campus since Kellogg-Voorhis is still too new and a-building to represent validity in such comparison).

## WHERE CAL POLY STUDENTS COME FROM--

(Regular Students, Fall Quarter, 1957)

	SAN LUIS OBISPO Enrollment	SAN LUIS OBISPO Per Cent	KELLOGG-VOORHIS Enrollment	KELLOGG-VOORHIS Per Cent
From California Counties	3492	86.5	728	96.6
From Other States	276	6.8	9	1.3
From Territories & Foreign Countries	272	6.7	16	2.1
Total...4040	100.0%		753	100.0%

## CALIFORNIA STATE POLYTECHNIC COLLEGE ENROLLMENT IS STATE WIDE



SAN LUIS OBISPO CAMPUS FALL ENROLLMENT

By Division

	<u>Men</u>	<u>Women</u>	<u>Total</u>		<u>Men</u>	<u>Women</u>	<u>Total</u>
Engineering Division	2290	12	2302	First Year	1005	144	1149
Agricultural Division	1007	29	1036	Second Year	1002	80	1082
Arts & Sciences Division	374	288	662	Third Year	842	71	913
Graduates	31	9	40	Fourth Year	822	34	856
	<u>3702</u>	<u>338</u>	<u>4040</u>	Graduates	<u>31</u>	<u>9</u>	<u>40</u>
					<u>3702</u>	<u>338</u>	<u>4040</u>

ENROLLMENT BY DEPARTMENTS

Agricultural

	<u>Men</u>	<u>Women</u>	<u>Total</u>
Agricultural Engineering	124	0	124
Mechanized Agriculture	124	0	124
Animal Husbandry	325	21	346
Farm Management	58	2	60
Field Crops Production	80	0	80
Truck Crops Production	20	0	20
Dairy Husbandry	62	0	62
Dairy Manufacturing	25	0	25
Fruit Production	20	0	20
Ornamental Horticulture	52	3	55
Poultry Husbandry	39	0	39
Soil Science	78	3	81
	<u>1007</u>	<u>29</u>	<u>1036</u>

Engineering

	<u>Men</u>	<u>Women</u>	<u>Total</u>
Aeronautical	270	1	271
Architectural	282	7	289
Air Conditioning & Refrigeration	99	0	99
Electrical	173	0	173
Electronic	703	2	705
Industrial	98	0	98
Mechanical	556	2	558
Printing	109	0	109
	<u>2290</u>	<u>12</u>	<u>2302</u>

Arts and Sciences

	<u>Men</u>	<u>Women</u>	<u>Total</u>
Agricultural Chemistry	15	0	15
Biological Sciences	55	16	71
Elementary Education	6	115	121
English & Speech	6	11	17
Home Economics	0	64	64
Mathematics	80	10	90
Physical Education	70	28	98
Physical Sciences	28	4	32
Social Sciences	86	20	106
Agricultural Journalism	28	20	48
	<u>374</u>	<u>288</u>	<u>662</u>

Graduate

	<u>Men</u>	<u>Women</u>	<u>Total</u>
Agricultural Education	17	0	17
Education	14	9	23
	<u>31</u>	<u>9</u>	<u>40</u>

	<u>Men</u>	<u>Women</u>	<u>Total</u>
Regular Students	3702	338	4040
Limited Students	55	106	161
<b>TOTAL</b>	<b>3757</b>	<b>444</b>	<b>4201</b>

NOT ALL STUDENTS ARE REGISTERED AT THIS TIME. SAN LUIS OBISPO CAMPUS ENROLLMENT IS 100% AND THE TOTAL IS 4201. THE NUMBER OF STUDENTS WHO CAME IN FROM OUTSIDE SAN LUIS OBISPO COUNTY IS 161.

\* THIS FIGURE INCLUDES STUDENTS WHO CAME IN FROM OUTSIDE SAN LUIS OBISPO COUNTY BUT HAVE NOW ESTABLISHED RESIDENCE IN SAN LUIS OBISPO COUNTY.

## PLACE OF LEGAL RESIDENCE (SAN LUIS OBISPO)

COUNTY	Nov. 10 1950	Oct. 30 1951	Nov. 18 1952	Nov. 16 1953	Nov. 23 1954	Oct. 29 1955	Nov. 2 1956	FALL Q. 1957
ALAMEDA	106	93	87	82	113	139	144	141
ALPINE	0	0	0	0	0	0	0	0
AMADOR	0	0	1	1	2	4	4	3
BUTTE	10	8	7	14	14	17	19	18
CALAVERAS	1	2	5	2	2	4	1	0
COLUSA	12	4	5	4	3	5	6	6
CONTRA COSTA	45	36	36	31	38	52	82	101
DEL NORTE	1	0	0	0	0	2	1	0
EL DORADO	12	5	2	3	8	7	7	8
FRESNO	50	43	35	40	39	51	58	54
GLENN	14	14	10	16	15	14	16	15
HUMBOLDT	8	11	12	12	17	19	27	26
IMPERIAL	17	26	40	22	20	27	27	23
INYO	7	7	4	1	3	2	6	6
KERN	51	47	67	73	77	92	113	119
KINGS	17	13	15	20	20	27	32	28
LAKE	5	2	4	1	3	5	5	2
LASSEN	6	4	3	5	4	4	3	8
LOS ANGELES	596	481	454	429	531	668	772	864
MADERA	4	5	4	11	7	9	13	23
MARIN	14	12	15	10	14	23	19	30
MARIPOSA	1	2	0	3	3	5	4	0
MENDOCINO	6	8	17	10	17	20	16	22
MERCED	31	25	15	12	14	18	30	28
MODOC	5	3	1	1	2	3	4	6
MONO	0	0	0	0	0	0	1	0
MONTEREY	57	38	37	42	60	57	67	61
NAPA	5	2	9	8	15	23	32	35
NEVADA	5	2	3	5	4	4	4	3
ORANGE	84	51	50	67	77	76	116	114
PLACER	5	6	5	7	12	10	13	18
PLUMAS	0	0	0	0	1	3	3	4
RIVERSIDE	68	56	49	49	65	71	84	96
SACRAMENTO	46	47	54	54	66	87	111	138
SAN BENITO	7	3	4	7	6	14	13	12
SAN BERNARDINO	64	51	46	45	65	66	87	93
SAN DIEGO	95	89	80	93	105	98	109	108
SAN FRANCISCO	68	57	48	45	43	45	72	72
SAN JOAQUIN	39	26	27	18	33	43	55	57
SAN LUIS OBISPO	199	186	185	202	264	367	465*	409
SAN MATEO	43	38	53	48	62	66	77	95
SANTA BARBARA	120	91	116	104	120	125	117	147
SANTA CLARA	79	55	55	58	64	79	80	93
SANTA CRUZ	34	34	25	24	27	39	39	36
SHASTA	5	8	8	6	7	9	8	13
SIERRA	1	2	0	0	0	0	0	5
SISKIYOU	6	3	8	7	8	9	8	7
SOLANO	12	7	11	12	16	29	39	43
STANISLAUS	46	32	36	27	35	47	62	71
SONOMA	31	26	31	30	34	36	42	42
SUTTER	9	6	7	6	4	5	8	7
TEHAMA	8	3	5	3	4	4	4	4
TRINITY	2	1	1	2	2	0	1	2
TUOLUMNE	3	4	3	3	5	5	8	12
TULARE	67	53	42	55	61	63	56	72
VENTURA	47	36	38	41	44	63	71	69
YOLO	4	4	2	7	7	5	6	17
YUBA	6	3	2	5	5	9	11	6
OTHER STATES	307	219	206	197	228	169	234	276
FOREIGN COUNTRIES	48	60	123	133	172	158	169	194
U. S. TERRITORIES	76	52	49	46	58	62	86	78
	2715	2199	2259	2259	2745	3163	3767	4040

NOT ALL STUDENTS REGISTERED AT THE SAN LUIS OBISPO CAMPUS WERE INCLUDED IN THIS SURVEY AS SOME CARDS WERE NOT AVAILABLE AT THE TIME THE STUDY WAS MADE. ACTUAL ENROLLMENT IN 1950 WAS 2767, IN 1951 IT WAS 2213, IN 1952 IT WAS 2259. HAD THE BALANCE BEEN INCLUDED IN THIS STUDY, SOME ADDITIONAL COUNTIES WOULD BE REPRESENTED.

\* THIS FIGURE INCLUDES MANY MARRIED STUDENTS WHO CAME ORIGINALLY FROM OUTSIDE SAN LUIS OBISPO COUNTY BUT HAVE NOW ESTABLISHED LEGAL RESIDENCE THERE.

ENROLLMENT OF REGULAR STUDENTS BY CLASSES AND CURRICULUM LEVEL  
 (San Luis Obispo Campus)

	Technical			Non-Veterans			Degree	Total
	Men	Women	Total	Men	Women	Total		
Freshmen	257			892				
Sophomores	231			1149				
Juniors	180			913				
Seniors	165			856				
<b>Agricultural</b>								
Freshmen	107	8	115	175	12	187		
Sophomores	91	1	92	175	3	178		
Juniors	0	0	0	180	4	184		
Seniors	0	0	0	279	1	280		
	<u>198</u>	<u>9</u>	<u>207</u>	<u>809</u>	<u>20</u>	<u>829</u>		
<b>Engineering</b>								
Freshmen	0	0	0	666	8	674		
Sophomores	0	0	0	657	3	660		
Juniors	0	0	0	560	1	561		
Seniors	0	0	0	407	0	407		
	<u>0</u>	<u>0</u>	<u>0</u>	<u>2290</u>	<u>12</u>	<u>2302</u>		
Total Married Students	1267	77						
<b>Arts and Sciences</b>								
Freshmen	57	116	173					
Sophomores	79	73	152					
Juniors	102	66	168					
Seniors	136	33	169					
	<u>374</u>	<u>288</u>	<u>662</u>					
Total Arts and Sciences	662							
<b>Graduates</b>								
Agricultural Education	17	0	17					
Education	14	9	23					
	<u>31</u>	<u>9</u>	<u>40</u>					
Regular Students	3702	338	4040					
Limited Students	55	106	161					
	<u>3757</u>	<u>444</u>	<u>4201</u>					
Winter, Spring Enrollment								

Enrollment at the San Luis Obispo campus for Winter Quarter this year was 3872 regular students and 187 limited--a total of 4059. Spring Quarter enrollment was 3931 regular and limited students, including 253 new students.

ENROLLMENT OF VETERAN AND NON-VETERAN STUDENTS

	<u>Veterans</u>	<u>Non-Veterans</u>	<u>Total</u>
Freshmen	257	892	1149
Sophomores	384	698	1082
Juniors	429	484	913
Seniors	391	465	856
Graduates	19	21	40
	<u>1480</u>	<u>2560</u>	<u>4040</u>

ENROLLMENT OF MARRIED STUDENTS

	<u>Men</u>	<u>Women</u>	<u>Total</u>
Public Law 346	0	0	0
Public Law 894	8	0	8
Public Law 550	858	4	862
State Veterans	49	0	49
Married Veterans	<u>915</u>	<u>4</u>	<u>919</u>
Married Non-Veterans	<u>352</u>	<u>73</u>	<u>425</u>
Total Married Students	<u>1267</u>	<u>77</u>	<u>1344</u>

COMPARATIVE ENROLLMENTS BY YEARS

(San Luis Obispo)

1-yr. Intervals

1938-39	---	651
1939-40	---	780
1940-41	---	739
1941-42	---	711
1942-43	---	570
1943-44	---	80
1944-45	---	128
1945-46	---	819
1946-47	---	1571
1947-48	---	2229
1948-49	---	2575
1949-50	---	2909
1950-51	---	2767
1951-52	---	2213
1952-53	---	2259
1953-54	---	2259
1954-55	---	2745
1955-56	---	3163
1956-57	---	3767
1957-58	---	4040

(Kellogg-Voorhis)

1-yr. Intervals

1938-39	---	113
1939-40	---	137
1940-41	---	136
1941-42	---	117
1942-43	---	69
1943-44	---	Closed W. War II
1944-45	---	Closed W. War II
1945-46	---	Closed W. War II
1946-47	---	280
1947-48	---	393
1948-49	---	411
1949-50	---	438
1950-51	---	405
1951-52	---	331
1952-53	---	413
1953-54	---	423
1954-55	---	384
1955-56	---	385
1956-57	---	506
1957-58	---	790

## ENROLLEMENT

## KELLOGG-VOORHIS CAMPUS

Fall Quarter registration at the Kellogg-Voorhis campus for the Fall Quarter, 1957, was 753 full-time students and 45 limited students--a booming increase of 52 per cent over the previous Fall Quarter.

Contributing to the notable increase was addition of new major offerings--four in Engineering and two in Arts & Sciences. Establishment of still new major offerings and new departments of instruction in the coming year is expected to result in a parallel increase for the Fall Quarter of 1958.

Enrollment by Departments

Agricultural Management and Sales	87
Animal Husbandry	94
General Crops Production	72
Fruit Production	38
Horticultural Services and Inspection	48
Ornamental Horticulture	40
Landscape Architecture	109
Soil Science	10
Aeronautical Engineering	23
Electronic Engineering	115
Industrial Engineering	26
Mechanical Engineering	52
Biological Science	20
Physical Education	19
	<u>753</u>

Enrollment by Classes

Freshmen	309
Sophomore	175
Junior	152
Senior	117
	<u>753</u>

Enrollment of Veterans and Non-Veterans

<u>Class</u>	<u>Veterans</u>	<u>Non-Veterans</u>	<u>Total</u>
Freshmen	67	242	309
Sophomore	68	107	175
Junior	56	96	152
Senior	65	52	117
	<u>256</u>	<u>497</u>	<u>753</u>

KELLOGG-VOORHIS CAMPUS ENROLLMENT  
(continued)

Enrollment of Married Students

Public Law 894	5
Public Law 550	133
State of California Veterans	8
TOTAL MARRIED VETERANS	<u>146</u>
	(About 56 per cent of Veteran enrollment)
MARRIED NON-VETERANS	<u>93</u>
	(About 18 per cent of Non-Veteran enrollment)
TOTAL MARRIED STUDENTS	<u>239</u>
	(About 31 per cent of Total enrollment)

Place of Legal Residence

Students enrolled in the Fall Quarter of 1957 came from 22 California counties. Largest number represented Los Angeles, the "home" county. Just as the San Luis Obispo campus could say "the State is our campus" so could Kellogg-Voorhis say "Southern California is our campus" since 95.5 per cent of regular students were from the six southernmost counties of the State as follows:

Southern California County	K-V Enrollment
Los Angeles	446
San Bernardino	99
Riverside	63
Imperial	44
Orange	40
San Diego	<u>28</u>
	<u>720</u>

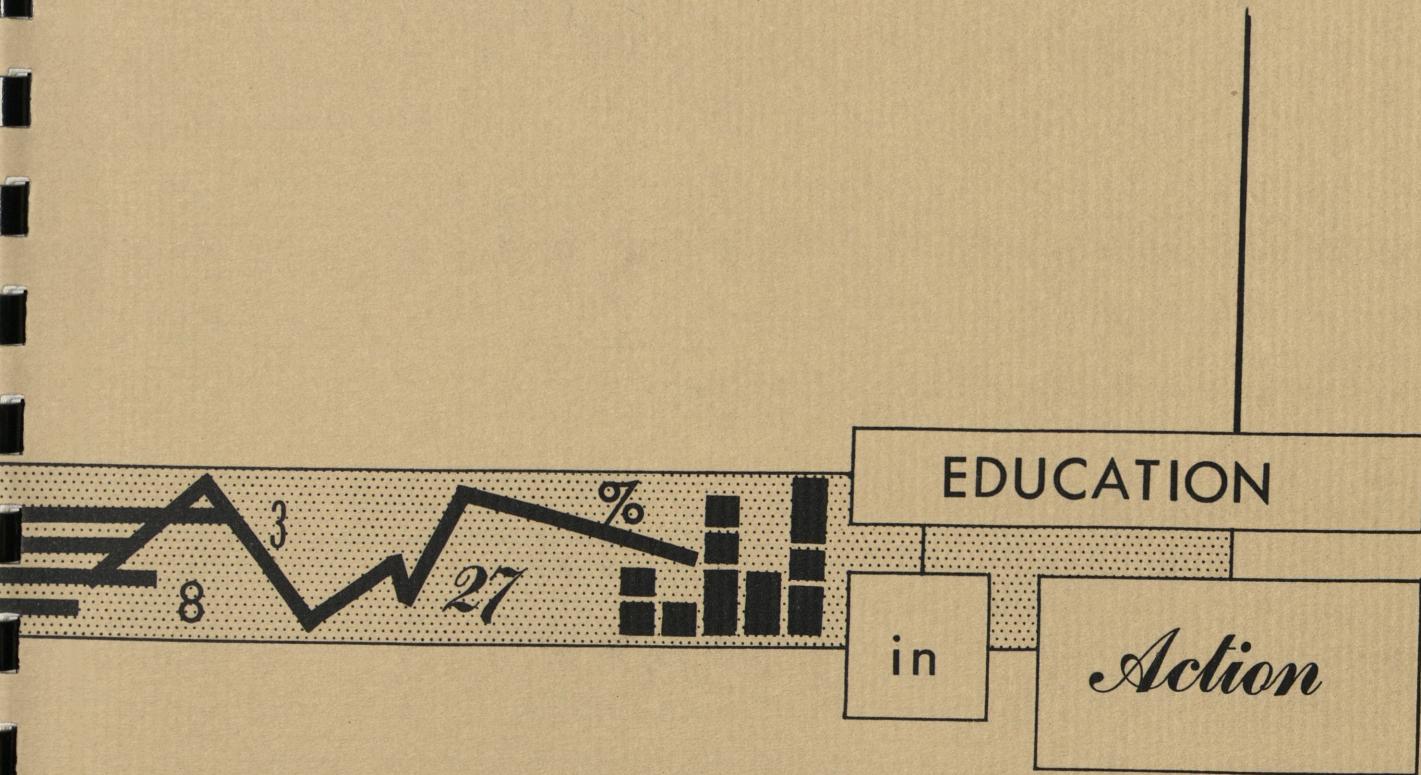
(Balance of enrollment: from other California counties, other states, U. S. territories and foreign countries.)

Winter, Spring Enrollment

Enrollment for the Winter Quarter of this year was 730. Spring Quarter enrollment totaled 743, including 101 new students.

# STATISTICS

STUDENTS  
DEGREES & CERTIFICATES  
FACULTY



DEGREES AND CERTIFICATES  
 Number of Degrees and Certificates Granted  
 (June, 1957 - S.L.O. Campus)

<u>Division and Department</u>	<u>Bachelor of Science</u>	<u>Bachelor of Education</u>	<u>Technical</u>	<u>Master of Arts in Education</u>
<b>Agriculture</b>				
Agricultural Engineering	22	0	1	0
Animal Husbandry	56	0	10	0
Dairy Manufacturing	10	0	1	0
Dairy Husbandry	19	0	4	0
Ornamental Horticulture	10	0	0	0
Poultry Husbandry	10	0	0	0
Crop Production, General	1	0	0	0
Citrus Fruit Production	1	0	0	0
Deciduous Fruit Production	3	0	2	0
Soil Science	12	0	0	0
Truck Crops	2	0	1	0
Field Crops	13	0	1	0
Mechanized Agriculture	5	0	3	0
<b>Engineering</b>				
Aeronautical Engineering	46	0	0	0
Air Cond. & Refrigeration	22	0	0	0
Mechanical Engineering	63	0	0	0
Electrical Engineering	27	0	0	0
Electronic Engineering	56	0	0	0
Printing	20	0	0	0
Architectural Engineering	29	0	0	0
<b>Arts and Sciences</b>				
Biological Sciences	16	0	0	1
Elementary Education	1	9	0	0
Health and Physical Educ.	13	0	0	6
Mathematics	23	0	0	1
Social Sciences	8	0	0	3
Physical Sciences	2	0	0	0
Education Agriculture	0	0	0	20
Agricultural Journalism	3	0	0	0
	<u>493</u>	<u>9</u>	<u>23</u>	<u>31</u>

Total of S.L.O. Graduates, June 1957 - 556

KELLOGG-VOORHIS CAMPUS  
 Graduates by Departments, June 1957

Agriculture

Crop Production	12
Ornamental Horticulture	20
Horticultural Services & Inspection	16
Fruit Production	6

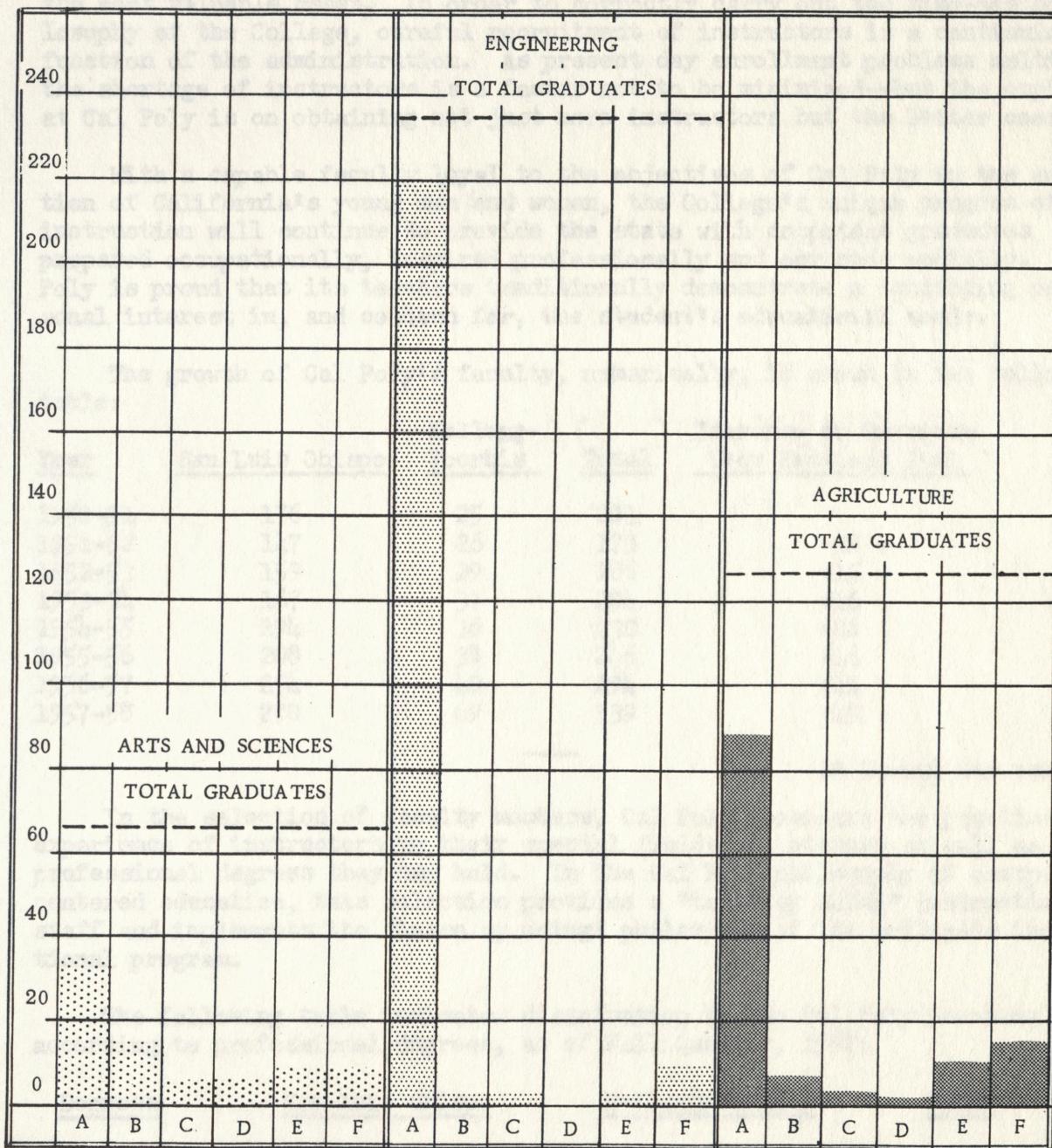
Total of K-V Graduates, June, 1957 - 54

(Degrees have not yet been conferred at Kellogg-Voorhis in Engineering and Arts and Sciences.)

# RELATIONSHIP OF FIRST JOBS TO CALIFORNIA STATE POLYTECHNIC COLLEGE TRAINING

FROM SURVEY OF 522 GRADUATES OF 1957

TOTAL GRADUATES REPORTING: 417



A JOBS RELATED DIRECTLY TO C.S.P.C. TRAINING

B TEACHING JOBS

C JOBS RELATED INDIRECTLY TO C.S.P.C. TRAINING

D JOBS NOT RELATED TO C.S.P.C. TRAINING

E ADVANCED STUDY IN MAJOR FIELD

F MILITARY SERVICE

## FACULTY

"A teacher affects eternity; he can never tell where his influence stops." --(The Education of Henry Adams)

-----

As in any college, the faculty at California State Polytechnic College is the most valuable asset. In order to correctly carry out the time-tested philosophy of the College, careful recruitment of instructors is a continuing function of the administration. As present day enrollment problems multiply, the shortage of instructors is a factor not to be minimized--but the emphasis at Cal Poly is on obtaining not just more instructors but the better ones.

With a capable faculty loyal to the objectives of Cal Poly in the education of California's young men and women, the College's unique program of instruction will continue to provide the state with competent graduates prepared occupationally, inspired professionally and enriched socially. Cal Poly is proud that its teachers traditionally demonstrate a continuing personal interest in, and concern for, the student's educational needs.

The growth of Cal Poly's faculty, numerically, is shown in the following table:

<u>Year</u>	<u>San Luis Obispo</u>	<u>Kellogg-Voorhis</u>	<u>Total</u>	<u>Increase or Decrease Over Previous Year</u>
1950-51	176	25	201	-
1951-52	147	26	173	-28 *
1952-53	159	29	188	+15
1953-54	167	37	204	+16
1954-55	194	36	230	+26
1955-56	208	38	246	+16
1956-57	254	40	294	+44
1957-58	270	69	339	+45

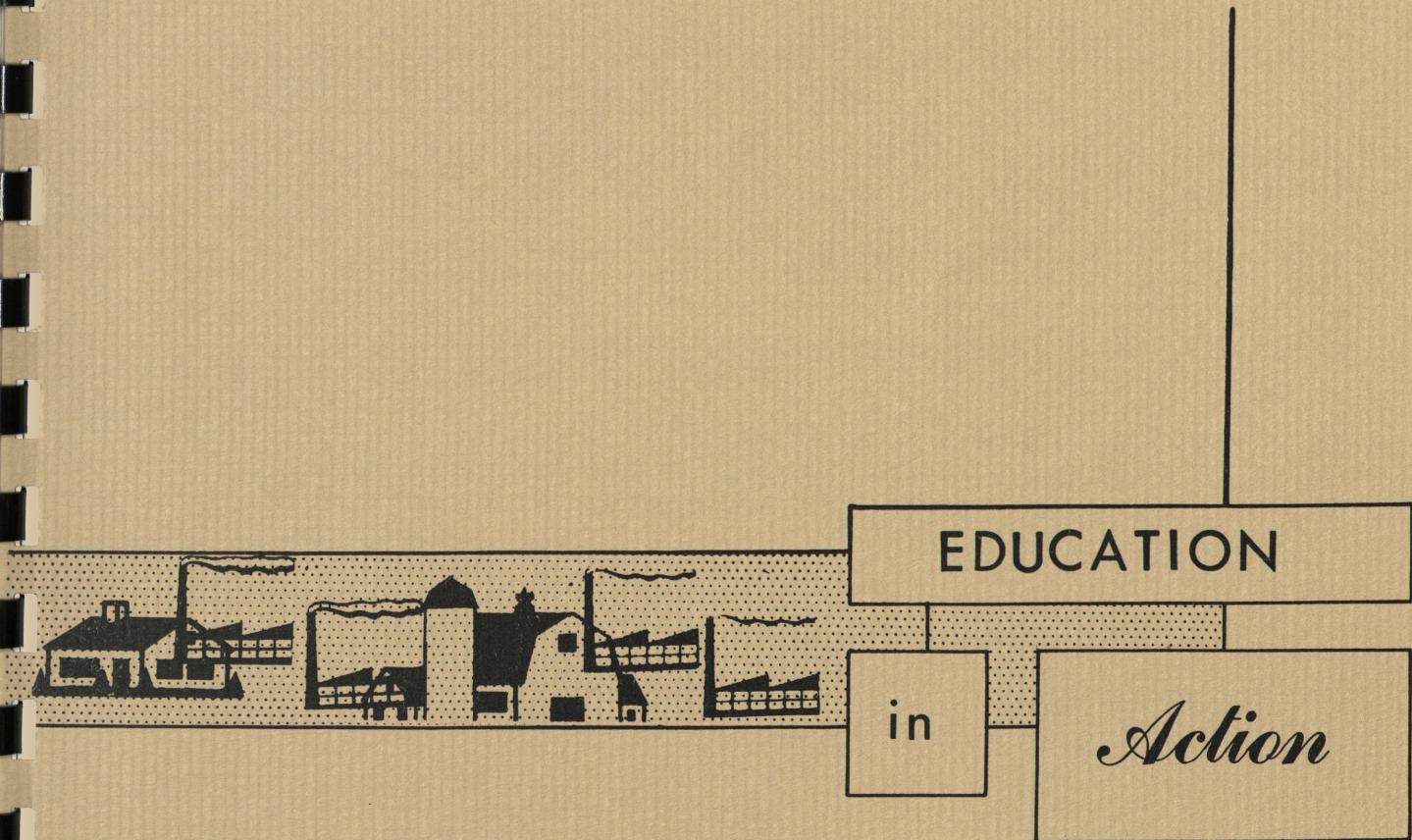
(\* Korean War period)

In the selection of faculty members, Cal Poly considers the practical work experience of instructors in their special fields of interest as well as any professional degrees they may hold. In the Cal Poly philosophy of occupationally-centered education, this selection provides a "teach by doing" instructional staff and implements the "learn by doing" philosophy of the college's instructional program.

The following table indicates distribution of the Cal Poly teaching staff according to professional degrees, as of Fall Quarter, 1957:

<u>Degrees</u>	<u>San Luis Obispo</u>	<u>Kellogg-Voorhis</u>	<u>Total</u>
Doctorates	58	14	72
Masters	116	32	148
Bachelors	88	22	110
None	8	1	9
Totals	270	69	339

# CONSTRUCTION PROGRAM



## MAJOR CONSTRUCTION

## San Luis Obispo Campus

## MAJOR CONSTRUCTION

This academic year foresees the completion of the Gymnasium, Cafeteria, Garage and Print Shop, the first half of the Ornamental Horticulture Units, the Barn, San Luis Obispo Campus

Classes in September utilized for the first time the East Wing of the Engineering Building which was completed in July, 1957. The West Wing is tentatively planned for construction in 1959-60.

The 52,000-square foot East Wing contains five classrooms, 18 laboratories and 10 office spaces plus auxiliary rooms. Architecturally, it adds to the gracefulness of the Cal Poly campus and complements the attractive Science Building adjacent to its landscaped grounds.

The only major construction to be completed on this campus during the college year was the remainder of the 1956-57 Site Development which consisted of additional street lighting, extension and rearrangement of utility lines, construction of a 22-car parking lot and construction of two short roads with sidewalks and lights.

A spectacular increase in the number of buildings and instructional capacity is scheduled for the campus in the 1957-58 budget. During the year, working drawings were prepared for the following buildings on which construction is expected to start by August, 1958:

1. Six residence halls with lounges, other auxiliary rooms, and 100 two-student dormitory rooms in each. Four of these 200-student halls are planned for men, the other two for women.
2. A Men's Physical Education building, including two classrooms, locker and shower rooms for indoor as well as outdoor activities, and a main gymnasium.
3. A student Health Service building to provide space for clinical services and an infirmary.
4. The Home Economics-Mathematics building containing six laboratories and 15 lecture rooms.
5. The Agriculture Classroom building which will have 10 labs, 15 lecture rooms and an activity room is intended to contain facilities for the Agriculture Division and the Social Science Department. Office space for both will be available.

## MAJOR CONSTRUCTION

Kellogg-Voorhis Campus

This academic year foresaw the completion of the Gymnasium, Cafeteria, Crops and Fruit Unit, the first half of the Ornamental Horticulture Unit; the Beef, Sheep, Swine and Poultry Production Unit, and the Science Building Glass house. Construction proceeded on the three Engineering buildings with completion of this unit now scheduled for November, 1958.

Funds for construction of the following additional facilities were approved by the Legislature in the 1957-58 budget:

1. Construct and equip Agriculture Units. Includes feed mill, wool lab and additional glass and lath houses for Ornamental Horticulture--\$460,800.
2. Equip Engineering Buildings.
3. Construct Business Classroom Building--\$693,000.
4. Construct and equip \$287,000 Corporation Yard.
5. Construct \$1,586,000 Library Building. It will include the Audio-Visual Center.
6. Construct and equip four 200-student Residence Halls--\$3,367,500, financed jointly by State and Federal governments.

The 70,000 square foot Science Building, occupied in the Fall of 1956, is the campus "nerve center" and is in maximum use, well beyond its rated capacity. It houses the administrative offices and most of the classrooms and indoor laboratory activities.

Serving 260 persons per sitting, the \$495,000 Cafeteria was the social hub of campus life during the year. Part of the cafeteria space was available for conferences and other activities.

Principal student attention has been focused on the Engineering group of buildings. The \$3,600,000 project, including equipment, had been planned for occupancy by the opening of Fall, 1958 but inclement weather and a labor issue combined to indicate that opening will be delayed from one to three months.

Completion of the gymnasium and playfields with equipment--a \$911,000 project--will considerably relieve Physical Education facilities and permit more efficient programming for the students' welfare.

An extensive Site Development and Campus Improvement program was started during the academic year, comprising street lighting, underground utility lines, roads and parking lots. The program involves expenditure of about \$680,000 for the fiscal periods of 1956-57 and 1957-58.

MINOR CONSTRUCTION  
("Earn While Learning")

Included in Minor Construction are

1. Construction projects costing \$20,000 or less and related equipment projects irrespective of cost.
2. Repair projects costing more than \$20,000.
3. Equipment projects not related to a specific construction project and estimated to cost in excess of \$20,000.

These are handled principally by the College, using college-owned equipment, regular staff and student assistants. During the 1957-58 academic year, the College will have completed some \$150,000 in construction projects plus the expenditure of about \$124,000 as equipment projects to establish the Industrial Engineering and Machine Shop laboratories.

Every effort is made to use student employment in this work whenever possible. This provides not only a source of revenue for the student but also a learning effort under supervision of skilled tradesmen. About 350 individual students will have worked on one or more of the construction projects during the year. Class labs are used in some cases but no pay is given in these instances since they are classroom-lab exercises.

Typical examples of this are construction of poultry laying houses by farm carpentry classes and concrete trench silos by Agricultural Engineers. Most of the earth-moving projects are performed by the Agricultural Engineering students who operate tractors, earth movers, power graders, tampers and other mechanical operations.

An interesting feature of this undertaking is that most of the earth-moving equipment was purchased from Surplus, then overhauled and prepared for use by student classes. Other student specialities used are draftsmen from Agricultural Engineering; electrical installation by the Mechanical Engineering and Electrical Engineering majors, and planning and installation of sprinkler systems and the actual landscaping performed by Ornamental Horticulture students.

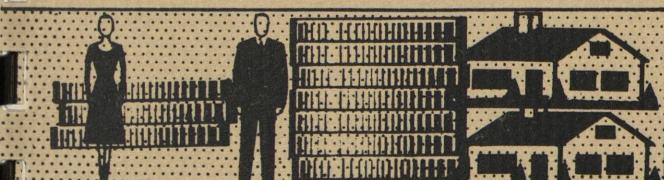
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CONSTRUCTION - Circa 1903

Cal Poly's San Luis Obispo campus had its beginning on a "sightly tract" of 281 acres purchased for less than \$8,000. Sites for the initial administration-classroom building and the dormitory were paced off by the school's first Director, LeRoy Anderson... Three instructors and the first 15 students met for the first classes in the unfinished parlor of the dormitory on Oct. 1, 1903.

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. THE FOUNDATION  
.. HOUSING  
. SPECIAL SERVICES



EDUCATION

in

*Action*

### THE COLLEGE FOUNDATION

The "Learn by Doing" and "Earning While Learning" system at Cal Poly implements "Experience is the child of Thought..."-Disraeli.

The California State Polytechnic College Foundation which functions on both campuses serves as an auxiliary organization created and managed to operate enterprises that implement the "learning by doing" and "earning while learning" system of the college. Related functions of the Foundation include operation and management of housing and cafeterias. Principal function of the Foundation is to aid the instructional divisions of the college through the student project program and semi-commercial agricultural and engineering enterprises.

The Foundation conducts certain projects of its own as aids to the instructional program. These include the college creamery and the purebred registered herds and flocks. It also finances student self-owned projects which are supervised by instructors and which enable students to "earn while learning" while actually practicing management and production skills taught in classes.

Total assets of the Foundation as of February, 1958 amount to \$785,587.

#### Summary of Project Program--Both Campuses

(Note: Since the Foundation operates on a fiscal basis that does not parallel the academic year, figures in this Summary, while indicative of business and Foundation scope, are not precisely applicable to 1957-58).

Projects in operation (Sept. '56)	230
Number of students in projects	334
New projects opened during year	264
Students operating new projects	411
Projects closed during year	287
Gross sales of projects closed during year	\$203,292
Net earnings by students	25,580
Net reserve to project fund	10,718
Loss insurance paid on projects	5,056
Gross sales, products - Foundation projects	652,000
Gross sales, products - Student projects	218,000
Total net earnings, Students and Foundation	45,116

Typical Foundation agricultural projects undertaken by students include fattening animals, raising and breeding cattle for a start toward future herds, growing crop projects, raising poultry, growing and marketing ornamental horticulture projects. Typical engineering projects include group enterprises such as performing repair work on radio and TV sets for students and faculty. Other Foundation projects include developing marketable visual aids and financing student-manufactured equipment.

During the calendar year 1957, the Foundation paid \$139,787.98 in gross wages to 842 students.

The "Learn by Doing" and "Earning While Learning" system at Cal Poly implements the occupationally-centered curriculums. Student projects, like those financed by the College Foundation, also teach practical management and business responsibility.



Students work on a new construction.



Accommodations were provided for 1,191 single students during the college year. Of these, 701 were housed in dormitories. However, in the five newest dormitories built to house the 1,191 students, it was necessary to place three students per room. This is the first time in more than half a century that three students have been housed per room in dormitory accommodations. In addition to the 602 students housed in dormitories, 52 were living in cottage-type structures. Sixty were living in off-campus houses and apartments, and 100 were working on their own projects throughout the campus. Some of these houses contain only 50 sq. ft. in which to keep the students. The dormitories are in a small area.



## HOUSING

San Luis Obispo Campus

One-third of the regular students at Cal Poly in the Fall Quarter of this year were living on-campus--but 28 per cent of these were housed in temporary, sub-standard frame structures with wallboard partitions. In addition, 188 were living in obsolete 110-square foot trailers more than 10 years old and due for removal this summer. One-third of the students at Cal Poly are married and many have two or more children. A large number of other students live in surrounding towns and some drive more than 40 miles a day to and from the campus. Off-campus housing that can meet college standards is in short supply in San Luis Obispo due to demands by governmental installations nearby, plus local industrial growth.

The College eventually will have six new residence halls (See Page 13) but completion is not expected until the Fall Quarter of 1959. Meanwhile, the housing shortage will worsen since 250 campus living accommodations are now being removed for new construction.

Single Student Housing--Accommodations were provided for 1191 single students on this campus during the college year. Of these, 737 were housed in permanent type dormitories. However, in the five newest dormitories built to house two students per room it was necessary to place three students per room. Deuel dormitory, built more than half a century ago, housed two students per room in only 94 square feet of floor space. In addition to the 402 students housed in temporary pre-fabricated structures, 52 were living in cottage-type dormitories located at various projects throughout the campus. Some freshmen men's temporary structures contain only 80 sq. ft. In some cases two students have had to be housed in this small area.

Women Students--Total capacity of the three dormitories for women--Chase, Heron and Jespersen dormitories--is 164. On-campus housed women represented about half of the total women students enrolled. Single women students are expected to live on campus their first college year. Off-campus housing must meet college approval. This year 10 residences off-campus were approved.

Married Students--In addition to the 188 trailers, 75 units with one or two bedrooms were available to married students on-campus. These consisted of 37 one-bedroom and 38 two-bedroom plywood structures at Poly Ninos Village. They were formerly used as military buildings elsewhere. They will be available next year for housing, though obsolete.

Outlook for 1958-59--Elimination of Hillcrest dormitory in the site clearance program this summer will reduce total student spaces by 68, leaving housing for 1123 single students in overloaded facilities. Married students' available housing will be reduced 70 per cent by elimination of the 188 trailers. It is estimated that about 2,000 students next year will have to reside in off-campus housing not considered adequate.

Kellogg-Voorhis Campus

Approximately 30 per cent of this year's students lived in the housing facilities at Voorhis--212 single men in residence halls and 40 married students in the Vet Hill unit and trailer park. Off-campus housing accommodated the remainder of students. The inadequate housing picture contributes to other problems of the college and of students.

Apart from services to SPECIAL SERVICES Cal Poly also took advantage of an opportunity to serve a government agency and other agencies and organizations during this past year. Two summer in-service programs for men, one for women, were held on the San Luis Obispo campus in cooperation with the State Department of Education and the California Association of Health, Physical Education and

Special services to agriculture, industry and education embody an expanding field of activity which Cal Poly supports increasingly each year.

Wherever and whenever possible, groups from industry and government agencies were granted services of Cal Poly's campus and facilities during this academic year—at both the San Luis Obispo and Kellogg-Voorhis campuses. More than 30 different conferences, meetings, workshops and clinics utilized the College's services and facilities in the 1957-58 year. Cooperation between the College and related outside groups and agencies is a public relations keyword which Cal Poly endeavors to implement by offering use of buildings, services of its staff, equipment and materials' use, and the prestige of the school in promotional areas as well as in other ways.

Cal Poly's specific interest in the agriculture teachers of the State, and its feeling of responsibility for continuing to aid them in the better performance of their jobs, finds tangible expression with cooperative in-service programs. The College works closely with the Bureau of Agricultural Education, State Department of Education and the California Agricultural Teachers' Association on in-service programs. Because Cal Poly has trained nearly 50 per cent of the agricultural teachers in California, it has more than ordinary interest in agriculture teacher training programs.

A one-week course of concentrated training information and skills was held on the San Luis Obispo campus last summer with 86 "ag" teachers attending.

Another week-long conference sponsored by the California Agricultural Teachers' Association and the Bureau of Agricultural Education followed the training course sessions with a total of 367 agriculture teachers participating.

Cal Poly's program of visits by its Agriculture Subject-Matter Specialists to high school and junior college agriculture departments continued this year with 19 schools visited by Specialists from the San Luis Obispo campus. Specialists in the field of ornamental horticulture from the Kellogg-Voorhis campus visited another 20 schools.

At Kellogg-Voorhis campus, the ornamental horticulture staff and facilities were utilized in the Fall to provide a concentrated week-long course in the skills of nursery practices, especially designed to aid high school and junior college agriculture instructors.

Future Farmers of America were provided with Cal Poly facilities and staff assistance in conducting their State Final Judging contest held in conjunction with the annual FFA State Convention at San Luis Obispo. Actual participants numbered 900 boys. More than 1,000 Southern California high school members of FFA held their annual Field Day at the Kellogg-Voorhis campus in April.

**CALIF.** Apart from service to agricultural groups, Cal Poly also took advantage of an opportunity to serve a growing number of other agencies and organizations during this past year. Two summer Workshops--one for men, one for women--were held on the San Luis Obispo campus in cooperation with the State Department of Education and the California Association of Health, Physical Education and Recreation. The three-week overlapping program was attended by 240 men and 141 women physical education teachers from all parts of the State and participated in by 42 members of the Association's staff.

Following is a listing of principal groups and events which utilized Cal Poly's campus facilities and services at San Luis Obispo and Kellogg-Voorhis in carrying out conferences, meetings, workshops and clinics: Grange Youth Conference, School Lunch Workshop, Calif. Ass'n of Nurserymen, State Employees' Ass'n, Society of Calif. Accountants, State Weed Control Committee, American Concrete Institute.

Calif. Hay, Grain & Feed Dealers, Tri-County Grange, Central Coast Science Fair, Pacific Coast Conference Football Officials' School, State College Maintenance Employees, Beef Promotion Council, Printing House Craftsmen, Arabian Ass'n of S. Calif., Pest Control Operators, Pest Control Board.

Secondary Education Bureau, State Dep't of Education; Association of Operative Millers, Scholastic Sports Association, Florists Telegraph Delivery Ass'n, National Shade Tree Ass'n, Western Frozen Food Processors Ass'n Directors, Calif. Hereford Ass'n, State High School Mathematics (Contest), Calif. Fertilizer Ass'n, Social Science Dep't, State Dep't of Education; State College Business Managers, Calif. Farm Bureau Federation, and others.

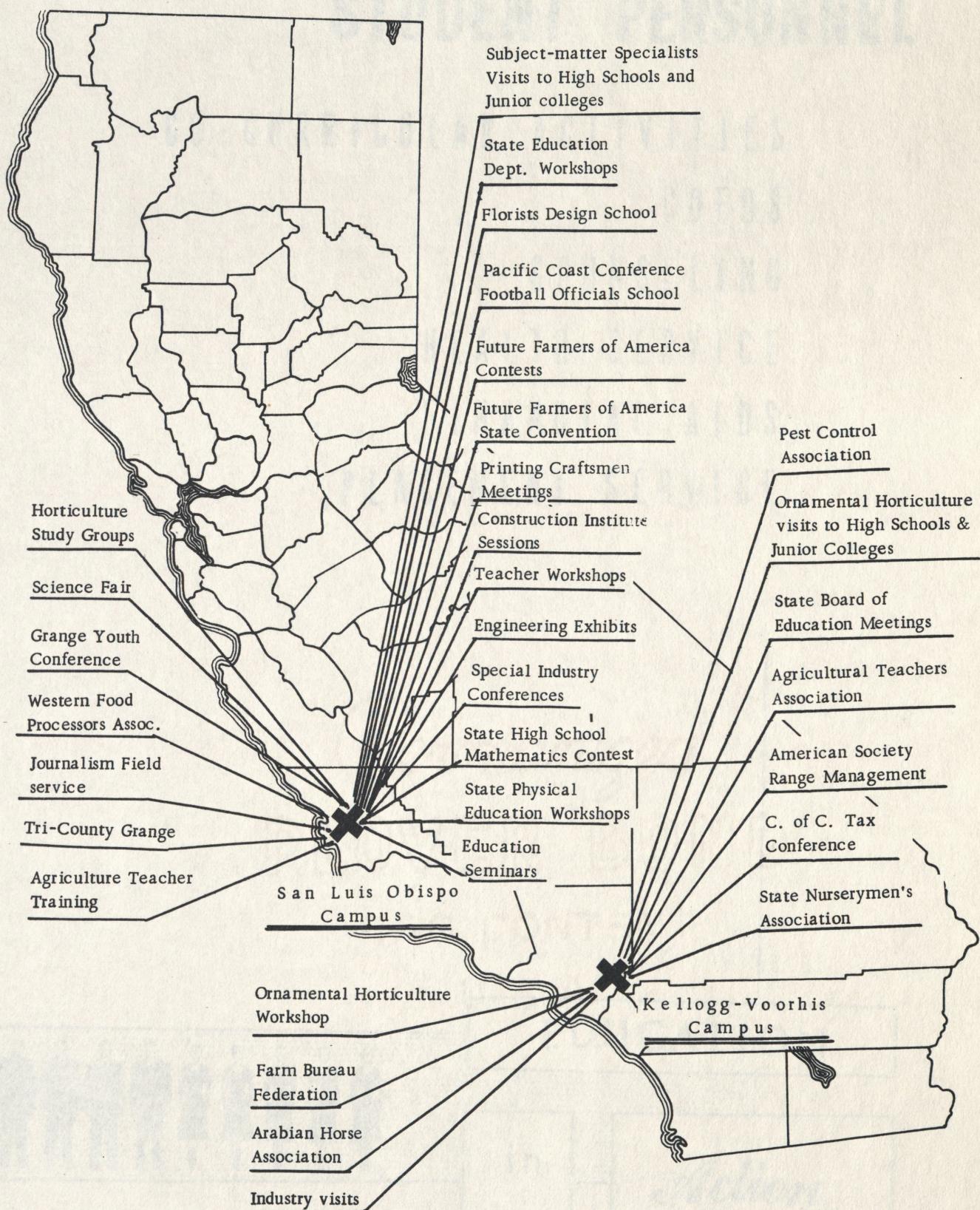
**FAR-SIGHTED LEGISLATURE  
CREATED CAL POLY COLLEGE**

The Legislative Act which created Cal Poly included this statement of purpose:

"The purpose of the school is to furnish to young people of both sexes mental and manual training in the arts and sciences, including agriculture, mechanics, engineering, business methods, domestic economy, and such other branches as will fit the students for the non-professional walks of life..."

"This article shall be liberally construed to the end that the school may at all times contribute to the industrial welfare of the State."

## CALIFORNIA STATE POLYTECHNIC COLLEGE'S SPECIAL SERVICES ARE STATE WIDE



# STUDENT PERSONNEL

CO-CURRICULAR ACTIVITIES

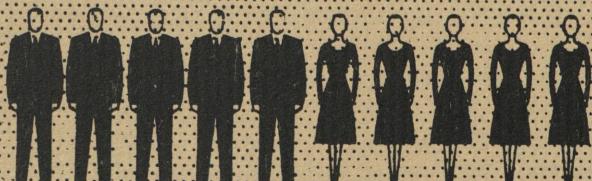
COEDS

COUNSELING

HEALTH SERVICE

FINANCIAL AIDS

PLACEMENT SERVICE



EDUCATION

in

*Action*

Supplementing instruction STUDENT PERSONNEL : college yearbook, El Rodeo, and the campus newspaper newspaper, El Mustang, students learned responsibilities of publishing and community influence through communications media. These and other student government activities provided opportunities for developing responsibility and acceptance of authority.

#### Co-Curricular Activities - San Luis Obispo Campus

Citizenship training highlights the aims of the co-curricular program at Cal Poly and Leadership training is a corollary objective.

The program is operated through an effective system of student government, involving a Student Council, a graduate manager, and a finance committee that handles a budget of \$125,000.

The co-curricular program strives to influence students' college experiences in an effort to create strong and clean attitudes. The mechanics of inspiration come from the student activity itself such as clubs--of which there are 88 of varying purposes and interests. Since 92 per cent of Cal Poly students live away from home, the co-curricular program and the influences of clubs, organizations, societies and dormitory councils provide a measure of environment akin to home, church and community life in general. The democratic way of life is stressed to develop leadership and to foster personal and community betterment.

Selected upperclassmen received leadership training by serving as student counselors for a series of three two-day camps held for 150 new students. Responsibilities of citizenship during college years were emphasized in the orientation for new students during "Welcome Week."

The three-day Sixth Annual Fall Leadership Conference at Camp Pinecrest in Cambria was attended by 85 students and 12 staff members. A one-day Spring Leadership banquet drew 200 student leaders. The curricular course in Group Leadership, featuring leadership problems, techniques and dynamics, was well-attended each Quarter of the academic year.

The "Activities Transcript" was refined for evaluation of student participation in the co-curriculum. Under this procedure student officers were given responsibility for evaluating group members and participants. Using the A-F academic grading scale, cooperation, dependability, thoroughness, leadership and tact were graded and used for personal counseling, placement interviews and in personnel studies. All of these, it is noted, are facets of the citizenship training that, Cal Poly feels, must accompany the formal education side of college life to help prepare students for the world they will live in after their college days are over.

A notable achievement in providing student leadership practice in business planning and managing in connection with group activities was the annual Music Tour to southern California communities. The college glee clubs and dance band attracted 23,000 persons in various community concerts. Another group activity that required extensive teamwork and student-managed events was the annual Poly Royal week-end open house which brought 15,000 persons to the campus where students exhibited college projects and demonstrated to the public a cross-section of college life.

Supplementing instruction by producing the college yearbook, *El Rodeo*, and the campus semi-weekly newspaper, *El Mustang*, students learned responsibilities of publishing and community influence through communications media. These and other student government activities provided opportunities for developing stewardship and acceptance of authority.

Varsity athletics being related to the whole physical education program as well as being an integral part of college life, Cal Poly this year fielded competitive teams in both conference and non-conference sports. The football team was undefeated by collegiate teams, winning eight games. As of the Fall Quarter, 1958, the Cal Poly football team will be a member of the reorganized California Collegiate Athletic Association. Cal Poly was a member of the Association this year in basketball, baseball, golf, tennis and track. The Cal Poly wrestling team, after winning 16 matches, achieved wide attention by taking first place in the Pacific Coast Intercollegiate tournament and then entering the national tournament. The boxing team also engaged in PCI competition with a record of two wins, two ties and three losses. Water polo and gymnastics teams vied with other State Colleges in competitive games and meets. A Cal Poly swimming champion placed high in national competition as did a member of the gymnastics team.

#### Co-Curricular Activities - Kellogg-Voorhis Campus

To assist an unprecedented number of new students in making adjustment to college life, a strong program of orientation was launched on this campus this year under direction of the Associate Dean of Students. Student body officers, college officials, faculty and staff members cooperated in explaining the Cal Poly educational philosophy, regulations, services and student government to the entering students at the Kellogg-Voorhis campus.

The objectives of the co-curricular program at this campus are parallel to those at the San Luis Obispo campus--citizenship and leadership training. To implement these objectives, new clubs were organized and others continued their contributions to the program. Departmental clubs were organized for each of the new Engineering majors, and a stronger class organization was evident this year. A leadership class stressing the efficient conduct of club meetings and proper parliamentary procedures was conducted for club officers. New campus clubs this year included an International Relations Club, Biological Science Club, Agronomy Club, Physical Education Club and a Latter Day Saints Club.

Mindful of the disruptive aspects of construction on the Kellogg campus and the problems that accompany crowded facilities, those who planned activities sought to maintain morale, build tradition and foster a cooperative spirit among students. A social dancing class in cooperation with Whittier College coeds was part of the activities program as were varsity athletics and campus sports meets. *Poly Views*, the student newspaper, and *Madre Tierra*, the yearbook, provided publications interest and experience that supplemented instruction.

The co-curricular activities program has kept pace with the growth of the Kellogg-Voorhis campus. The pattern of many activities followed that at the San Luis Obispo campus. Poly Vue Day, the open house activity, was again carried out successfully. The glee club and orchestra again toured high schools and varsity athletics furnished competitive action on a larger scale. All of these activities, and others, contributed to carrying out the citizenship-leadership objectives.

### Women Students at San Luis Obispo

The second year of co-education was marked by successful integration of the women's program into the general college program.

Women students were enrolled in all instructional Divisions of the college and in more than half of the Departments. They maintained grade point averages consistent with those of women in college generally. As a case in point during the 1956-57 college year they constituted 7.1 per cent of the college honor roll--"The President's List" of B-average or higher grades--while their enrollment total was only 5.2 of the college total. A similar ratio was being maintained this year.

Women students were active in religious activities and in various clubs on campus. The student body secretary was from the women's ranks as was the campus newspaper editor in the Fall Quarter. A woman headed up the News Bureau in the Winter Quarter. Of 12 persons on the staff of the college yearbook, nine were women, including the editor.

Women students in Agriculture were engaged in Foundation student projects and were members of Livestock Judging Teams. They were represented on a highly successful rodeo team. They had members in the college marching band. As well as being in other music groups, they formed a Women's Glee Club. They were active in Poly Royal's planning and presentation.

About half of the women students this year were housed on campus in three dormitories. Ten off-campus residences were approved, operating with the same regulations that applied to on-campus halls. Upperclass student assistants living in freshmen dormitories assisted in liaison between students and administration. Student government in dormitories and the inter-dormitory council functioned well in women's activities. A "Big Sister" program sponsored by the Home Economics Club was a noteworthy movement in orientation of women students during the college year.

Enrollment of women at Cal Poly's San Luis Obispo campus in the Fall Quarter of this year was as follows:

BY DIVISIONS	BY YEAR
Agriculture	29
Engineering	12
Arts and Sciences	288
Graduate	9
	338
	First year
	Second year
	Third year
	Fourth year
	Graduate
	338

### Counseling and Testing - San Luis Obispo Campus

Since the general purpose of the Counseling Center is to contribute effectively to the welfare and growth of students, the Center's philosophy of assistance considers all aspects of the individual's total college program in proposing solutions to problems. The hub of Counseling is the instruction program and to this hub all spokes of the educational process wheel are fastened.

More than half the enrolled student body at Cal Poly visited the Counseling Center during this academic year. On the average, 15 students daily sought educational advice and vocational counsel and information.

Assistance from the Center takes the form of coordinating all phases of a student's problem. As coordinator, the Center proposes solutions to a student's problems by consulting with the instructor, the course adviser, the Dean of Students and others who may have a part in the student's over-all college program. The Center recognizes that Counseling is definitely tied in with instruction. As part of the Student Personnel Division, the Center's role is advisory and its services are always available to instructors and students in correlating matters that require adjustment to maintain standards of learning.

Committed to a belief that a student who seeks help needs help, the Counseling Center initiates closer relationship between the student and his instructional division on the realistic theory that a well-ordered campus experience cannot exist without satisfactory academic performance, which includes vocational training.

Questions on occupational training constitute the No. 1 reason for student visits to the Counseling Center. Students also seek information about their interests, attitudes and aptitudes; advice on probationary status, guidance on occupational and vocational objectives, and counsel on personal problems.

The Center has initial contact with each student at various times during the year through guidance tests given at the start of each Quarter. Testing Center operations indicate that more than 7,000 separate guidance tests were administered during the college year to 2,039 newly-entered students. As many as eight different tests were given some entering groups and all new students were given at least five guidance, placement or pre-employment tests prescribed by academic advisers, counselors or industry.

### Kellogg-Voorhis Campus

Counseling objectives include the primary one of assisting students to work out problems requiring adjustment through a program of coordinating all aspects of the student's campus life with his academic-vocational workload. Because this campus' academic program is still developing and subject to some adjustments with temporary facilities, Counseling this year sought to foster realistic attitudes among students confronted with problems peculiar to expedient living conditions. An increasing number of students sought direction and advice. The Center devoted much attention to compiling information on various aspects of the student population as well as conducting studies of admissions and academic predictions and developing local test norms.

Students pay a nominal fee for the Clinic services and are assured of professional medical attention to their needs.

### Student Health Service - San Luis Obispo Campus

Cal Poly's philosophy underlying the student health program always has been related to the over-all philosophy of the college. Basic to this is attainment of civic intelligence as a fundamental of citizenship training. Of equal importance is the development of a well-rounded and adjusted personality. To effect these, Cal Poly's objectives are to maintain a state of optimum health among the student body and to indoctrinate each student with the proper attitudes and habits regarding personal and community health.

The Student Health Service implements these objectives by being responsible for the environmental sanitation on the campus and conducting regular inspections of the food preparation and eating areas as well as the dormitories. It aims to discover defects in individuals in an early, correctable stage and to conserve students' time by preventing and treating acute illnesses. It also aims to exclude contagious diseases from the campus by a rigid program of preventive medical education, especially for those who come in contact with farm animals and birds.

The Health Service this year continued the Salk poliomyelitis vaccine program started last year. It carried on a program of immunization directed at Asian flu and other influenza and virus outbreaks and conducted an allergy program. Inspections of food preparation and eating areas were made by bacterial count. Student corpsmen from the Biological Science Department assisted in the sanitation program.

As in all other State Colleges, students at Cal Poly pay Quarterly fees for medical service that includes a physical examination and minor and major surgery exclusive of specialists' services. This year it was found that about 75 per cent of the students had some problem requiring further investigation or treatment after the mandatory complete health examination given to each entering student. During the year, 177 students were hospitalized for a composite total of 740 days. Audiograms revealed that more than 10 per cent of students had some hearing loss in the speech range and another 18 per cent had hearing loss outside the speech range. Services performed by the Health Service staff of four full-time physicians, four nurses, two technicians and student corpsmen, included allergy tests and treatment, electrocardiogram, basal metabolism, diagnostic X-ray, clinical lab, diathermy and physiotherapy. Serology tests were given all students.

### Health Service - Kellogg-Voorhis Campus

Contract medical services with the Magan Medical Clinic, Covina, provide students at this campus with medical and surgical care including admission medical examinations, health counseling, emergency care and first aid for sick and injured persons and outpatient care to the level of that expected of the average family physician. The Clinic assumes medical administration of the health program and performs campus public health services, including regular inspection of food preparation and eating areas. In addition to the State-paid services of a Medical Officer available at the Clinic, the campus health center provides a college nurse who directs the environmental sanitation program as well as other duties and services for the students' welfare. Students pay a nominal fee for the Clinic services and are assured of professional medical attention to their needs.

Scholarships and Loan Funds are important to California State Polytechnic College not only because they provide financial assistance to young people who seek education in an occupationally-centered college but also because such awards express confidence of the donors in Cal Poly's philosophy and objectives.

#### San Luis Obispo Campus

Total current scholarships available to Cal Poly students during this college year totaled 93. Some of these scholarships, given by interested industrial and agricultural firms and by thoughtful citizens of the State, have been in existence for more than 20 years.

The Leopold Edward Wrasse Scholarships made available for 1957-58 amounted to 25, each with a value of \$500. The number of Wrasse Scholarships for 1958-59 will be increased.

During this college year, new scholarships added to those already in existence at Cal Poly were:

Neely Enterprises, \$250, for Electrical & Electronic Engineering students.

Henry C. Page, \$500, for Printing majors (offered by Calif. Newspaper Publishers' Ass'n.).

Marguerite S. Tyson, \$500, for Dairy Husbandry students.

Revolving Loan Funds provided \$19,512 for Cal Poly students this year. Ninety per cent were short-term loans. Additionally, long-term loans drawn against the Wrasse Loan Fund totaled \$14,687. New loan funds added this year were:

Isaac M. Baer Fund, \$600-plus, to aid fourth or fifth year married students with families.

Laura Settle Fund, \$500, to aid seniors preparing to teach (offered by Calif. Retired Teachers' Ass'n.).

Financial values of scholarships, loan funds and gifts given this year to Cal Poly amounted to \$91,661.

#### Kellogg-Voorhis Campus

While Kellogg-Voorhis students usually enjoy the same eligibility for Cal Poly scholarships as those students at the San Luis Obispo campus, some scholarships are designated for use at a specific campus. During this year, 26 scholarships worth \$8,325 were granted for use of incoming students at this campus and 11 scholarships worth \$1,550 were made available to advanced students. These scholarships, and others available to Kellogg-Voorhis students, totaled 44.

Loan Funds have been in operation for several years at this campus.

A total of 774 short-term loans were made to students to meet emergency situations, plus seven long-term loans to assist students in need.

Placement Office (continued)

Cal Poly's centralized placement service at both the San Luis Obispo and the Kellogg-Voorhis Campuses has earned a high reputation for selectively placing most of its recommended graduates. The Placement Office and instructional departments combine their efforts to assist students in obtaining the most suitable employment consistent with their preparation and experience.

A survey recently compiled outside of this Office with the central question, "Is the graduate's first job related to Cal Poly training?" indicates effective "selective" placement. (See Page 11 for survey chart.)

Despite a general economic decline in national employment--a factor which would affect the on-campus job-interviewing phase of Placement--this year's number of students contacted on campus by prospective employers was higher than last year. The monthly average (October through March) shows 533 students contacted on campus, 24 campus recruitment visits by employers and 20.5 employers for whom interview schedules were arranged. As usual, several employers wrote letters commending the training of Cal Poly graduates hired.

Student part-time employment information obtained from the Placement Record Card for the Fall Quarter of this year showed that 1088 students had jobs on or off campus. Compared to previous years, the total of working students is an increase proportionate to the general enrollment gain.

The Placement Office compiles and maintains a placement folder for each student completing the Teacher-Training program, except candidates for vocational agriculture credentials. The total of such teacher placement registration--those seeking the services of this office--was 87 for the college year as of April 1. In addition, this office provides teacher placement service to alumni as well as to candidates for graduation. Alumni registering this year totaled 19.

This office also provides service for summer job listings and participates in an annual employment follow-up program to appraise success of placement to the satisfaction of employer and employee.

On-Campus Recruitment Activity to April 1, 1958, in Comparison With Prior Years.

	<u>1953-54</u>	<u>1954-55</u>	<u>1955-56</u>	<u>1956-57</u>	<u>1957-58</u>
No. of employers formally recruiting on-campus	48	69	108	170	144
No. of on-campus student contacts by employers	615	825	1913	3526	3721

Placement Office (continued)

Summary of interviewing activities of employing organizations visiting the Cal Poly campus during the regular recruiting period, October 1, 1957 to April 1, 1958:

	<u>1955-56</u>	<u>1956-57</u>	<u>1957-58</u>
No. of students contacted through regular interview schedules	1913	3526	3721
No. of campus recruitment visits by employing organizations	211	243	171
No. of employing organizations for whom interview schedules were made	108	170	144
No. of above organizations recruiting on campus for:			
One day	57	96	111
Two days	21	41	45
Three days	7	13	4
Four days	13	5	0
Five days	0	5	0
No. of employer organizations' representatives who conducted interviews	215	413	263

Survey of Starting Engineering Salaries

Northrop Aircraft, Inc., has released the results of a study of Spring 1957 hiring rates in engineering for graduates from 63 colleges and universities. Shown below are the average starting salaries for Cal Poly 1957 graduates and those shown in the Northrop study for comparable types of engineering.

<u>Degree</u>	<u>Cal Poly</u>	<u>Northrop Study</u>
Aeronautical	\$473.05	\$495.00
Mechanical	\$476.76	\$469.00
Electrical	\$492.82	\$448.00
(including electronic)		

# INSTRUCTION

OBJECTIVES & PHILOSOPHY

NEW CURRICULA

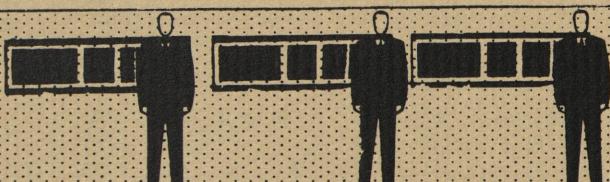
LIBRARY

THE DIVISIONS:

...AGRICULTURE

...ENGINEERING

ARTS & SCIENCE



EDUCATION

in

*Action*

## Objectives and Philosophy

Cal Poly's progression from a vocational high school to its present stature as a full-fledged State College with bonafide Statewide enrollment and service resulted from adherence to its basic objectives and philosophy.

Admittedly there were influences, personalities and events which contributed to Cal Poly's attainment of maturity. But the stated objectives and philosophy served to steer the College like a mariner's chart guiding a ship on its true course.

Cal Poly recognizes the wisdom of its Legislative founding fathers in 1901 who had the foresight to use a perceptive crystal ball in anticipating future educational needs. When they enacted legislation to establish a vocationally-geared school that would increasingly benefit the State as its economy matured, they defined Cal Poly's birthright:

"Purpose...to furnish to young people of both sexes mental and manual training in the arts and sciences, including agriculture, mechanics, engineering, business methods, domestic economy, and such other branches as will fit the student for the non-professional walks of life..."

This definition of purpose was broad to permit adaptation to changing times and future events. The Education Code (Chapter 3, Section 20651) which incorporates that Purpose leaves no doubt how the definition shall be interpreted: "This article shall be liberally construed, to the end that the college may at all times contribute to the industrial and agricultural welfare of the state."

Thus, it is clear, Cal Poly's reputation for being "different" is warranted. Cal Poly is different by law. It was "born" different and thereafter pioneered educational concepts to implement its legal purpose. Its objectives and philosophy have been a-building, therefore, for more than half a century. They were constructed on a firm base erected by the people's representatives in State government.

One way in which Cal Poly is different from traditional educational concepts is in its "upside down" system which starts a student in his major instruction during his freshman year. His curriculum is heavily weighted with subjects in his major the first two years and augmented by a lesser load of general education subjects. In the next two years the general education subjects increase as work in major fields of study tapers off comparatively.

One aging concept is that general education subjects should precede, rather than accompany, specialized or occupational training. Cal Poly's historic digression from this idea made it a pioneer in a movement now finding favor in other colleges and even at two of the nation's leading universities--University of California and Stanford. A University of California public announcement this Spring reported that the University's College of Letters and Science hereafter will encourage students "to enter their major program before the junior year..." A Stanford University Bulletin of November 15, 1957 reports on a

### Objectives and Philosophy (continued)

"new approach" which "allows the student to begin his specialized study as early as the freshman year, but at the same time it insures that during each of his four years at Stanford he is exposed to a wide range of knowledge outside his field of specialization." Cal Poly feels pardonable pride in having pioneered basic concepts now being recognized by two of the country's top liberal arts universities.

Cal Poly's occupationally-centered curricula offers educational experiences and early employability since the jobs for which students are being prepared are clearly identified and used to dictate curricula. Supporting courses are closely correlated with major instruction. General education courses are offered throughout the four years to accompany, rather than precede, occupational training. Placement of graduates and a periodical follow-up program are accepted Cal Poly responsibilities to provide close contact with employer and graduate. This results in on-the-job assistance to the graduate, better understanding of changes in the occupations for which the College prepares its graduates and better balance between the "how" and "why" phases of instruction.

Other phases of the total Cal Poly philosophy and objectives include "learn by doing" and "earn while learning" concepts. These are embodied in the Project system which consists of self-owned or managerial projects operated by students. Such projects provide knowledge and experiences in the commercial production and marketing of agricultural products or in the construction, rebuilding, repair or maintenance of industrial machinery or equipment. Students are enabled to earn money while doing work directly related to major academic interest. Incentive is supplied for more rapid acquisition of further skills and knowledge. The project system is firmly entrenched at Cal Poly by incorporation within the California State Polytechnic College Foundation that was organized on the campus and formulated by faculty and staff members. The non-profit organization is 18 years old and carried on a gross business of more than \$1,000,000 this year.

Despite a long-time, historic solidity of proved philosophy and objectives, the heart of the Cal Poly program is constant experimentation and search for new and better ways to apply its philosophy. Cal Poly is dedicated by law and inclination to an occupationally-centered approach to education but it is dedicated by common sense and administrative conscience to always seek improvements and, if necessary, changes in the implementation of its basic purpose.

Cal Poly recognizes that Citizenship Training should parallel the search for knowledge and the development of vocational skills in the total educational objective. Twin goals are Citizenship and Leadership and the college implements these by urging active participation in student government, clubs, societies and student body activities. The total college philosophy encompasses these as important adjuncts of the classroom and laboratory and seeks in its students development of the individual toward social responsibility and a well-rounded preparation for community participation.

The majors in Mathematics, Physical Sciences, and Social Sciences parallel those offered at the San Luis Obispo campus. The three business majors—Accounting, Business Administration and Marketing and Sales—have been developed in accordance with the Cal Poly philosophy to prepare young people for employment in these occupational areas.

## NEW CURRICULA

### San Luis Obispo

Since only the first year of a Home Economics major was offered at San Luis Obispo in 1956-57 with an enrollment of 36 co-eds, the second and third years were added at the start of the current College year. Enrollment jumped 77%. The fourth year of the major will be added in 1958-59.

Large enrollment increases have occurred in the majors introduced in 1956-57. Excepting for Mechanized Agriculture which had a starting enrollment of 138 last year and dropped to 124 this current year, the other majors added in '56-57 showed significant increases as follows:

	<u>1956-57</u>	<u>1957-58</u>	<u>Increase</u>
Industrial Engineering	69	98	43%
Elementary Education	77	121	57%
Agricultural Chemistry	7	15	114%
English	7	17	142%
Farm Management	38	60	58%
Home Economics	36	64	77%

Next Fall, two years of a major in Technical Arts will be offered. Objectives of this major, in addition to preparing students for industrial arts teaching, are to supply graduates for employment in industrial sales and service, industrial operations, technical writing and allied fields. Emphasis will be placed on knowledge of products, systems, personal relationships and economics. The curriculum will blend modern skills and technology with a general cultural background to produce a well-rounded, socially-oriented graduate.

### Kellogg-Voorhis

Six majors were introduced in 1957-58 and will be expanded to include the first three years, starting in 1958-59. They are:

	<u>Enrollment</u>
Biological Science (2 years)	20
Physical Education (2 years)	19
Aeronautical Engineering (1 year)	23
Industrial Engineering (1 year)	26
Electronic Engineering (1 year)	115
Mechanical Engineering (1 year)	52

Next Fall the first three years of majors will be offered in Accounting, Business Administration, Marketing and Sales, Mathematics, Physical Sciences, and Social Sciences. The first two years of a major in English and Speech and the fourth year of the Agricultural Management and Sales curriculum also will be added.

The majors in Mathematics, Physical Sciences, and Social Sciences parallel those offered at the San Luis Obispo campus. The three business majors--Accounting, Business Administration and Marketing and Sales--have been developed in accordance with the Cal Poly philosophy to prepare young people for employment in these occupational areas.

## LIBRARY

"Libraries are not made; they grow."--Augustine Birrell

It is true that Cal Poly's Library has grown in stature each year but until additional physical facilities are ready its growth in use and services will be hard put to expand. The Library is a service function of the college and is administered by the Arts and Sciences Division.

Circulation has increased almost six per cent over last year with a total circulation of 83,378. Crowded conditions in reading rooms and storage areas hamper efficiency of operation despite extensive service by the staff of ten professional librarians and five clerks. The seating space for readers is below 10 per cent of enrollment, as an example.

The Library now contains some 65,000 volumes and is increasing by about 7,000 volumes each year. More rapid growth is not presently possible since the Technical Services cannot handle a larger quantity of material in the presently limited facilities.

Most acute need, which the forthcoming addition to the Library will relieve, is adequate work space for Technical Services, Order and Cataloging. The addition will bring facilities to standard. Next year's allotted staff increase will add two professional librarians and two clerks.

Use of materials within the building is estimated as constituting some 50 per cent of the Library's service load. This involves the Reference service, Periodicals use, Reading Room services, public services and Technical Services--virtually all operations of the Library other than Circulation.

#### Kellogg-Voorhis Campus

While library services were centered on the Kellogg campus, reference service also was provided at the Voorhis unit. About 2,000 volumes in the forms of books, microfilm and bound periodicals were added to bring the collection total to 12,290 volumes. Two hundred paid and 136 free magazine subscriptions were received.

Among new services, the most important was the placing of author and subject cards for 4,000 documents in the main Card Catalog.

#### Audio-Visual Department

This department's main function (at both campuses) is service to instruction, campuswide. For administrative purposes it is part of the Arts and Sciences Division. Its service program provides instructional materials, equipment and bibliographic aid to locate sources of materials for specific teaching problems. Functions of the production program are to produce materials where commercial materials are unavailable or inadequate and to train students in A-V production skills. After instructional requests are filled, service to co-curricular activities is provided in assisting with methods, techniques, equipment operation and graphic production. The college growth, additional courses and an increasing number of instructors using A-V methods in teaching all combine to make this department's workload heavy and its services in constant demand.

## AGRICULTURAL DIVISION

"The farmers are the founders of human civilization."--Daniel Webster.

### Objectives of the Division

To implement the Cal Poly philosophy and objectives, the Agricultural Division prepares students in the field of agriculture to achieve a full and broad understanding of basic factors involved in production, management and marketing, together with the necessary skills, experience and related subjects to make the graduate an efficient agricultural producer.

The approach used in Agricultural education at Cal Poly not only prepares students for positions in the production fields but gives thorough training in managerial skills and techniques and in various other fields closely allied to agriculture, such as service industries and business. This knowledge of all basic factors in the Agriculture industry not only enables the student to reach the top in the industry but gives him a solid grasp of the significance of all agricultural processes and instills proper attitudes toward all problems faced by the industry.

This Division's instructional approaches are geared at all times to the "Learn by Doing" and "Earn While Learning" aspects of Cal Poly's long-time objectives. The "Upside Down" curricula in this Division works on a broader base generally than in other Divisions and has been instrumental in providing non-degree seeking students with employable skills and special knowledge they would not otherwise obtain. The "how" and the "why" are both stressed in the four-year degree curricula and all majors in this Division have a liberal number of free electives from which to choose to help them obtain a well-rounded program. At all times the Citizenship and Leadership training inherent in the Cal Poly concept of education is fostered. Students find expression of this training in the Division's many clubs and activities that are part of their college lives.

### Highlights of Activities - San Luis Obispo

Activities with which this Division was linked this year were varied and many. Students in Animal Husbandry participated in the major livestock shows and sales, collegiate livestock judging contests and collegiate rodeos. Typical shows and sales were the California State Fair, Grand National Livestock Show, California Thoroughbred Selected Yearling Sale, Los Angeles County Fair, and others.

Students in Ornamental Horticulture sponsored an annual flower show where student project-produced plants were marketed. Dairy Cattle Judging students placed first at the Grand National and third in the National. Dairy Products students won first in the Western Regional and 15th in the National in their competition. Poultry Husbandry majors operated a display booth at the Western Poultry Congress and built an 800-bird addition of new commercial design to the college laying flock equipment. Students participating in collegiate rodeos won top honors in both the men's and women's competitions.

Field trips to different parts of the State, to high schools with vocational agriculture programs and to industries concerned with agriculture were undertaken at different times of the college year by students in connection with specific studies and projects. Students and instructors combined in many instances to provide community service. Ornamental Horticulture majors assisted in landscape design for San Luis Obispo County schools, for example. And students from Poultry Husbandry aided in judging contests and sales projects. Several departments assisted the Future Farmers' Annual convention and statewide judging contests held on the campus.

Specialists on the teaching staff assisted the Bureau of Agricultural Education on teacher visitation programs at high schools and in specific programs involving the respective departments. Technical and professional assistance to individual teachers in various agricultural fields were furnished by Cal Poly Agricultural Division staff members.

#### Educational Program

On the instructional side, the Division continued the training program for foreign technicians sent to the U. S. under the International Cooperation Administration program for instructing in agricultural mechanization.

Educational programs were developed and conducted by several departments. Public service and industry service groups receiving Cal Poly services in this respect included the California Hereford Breeders' Ass'n, Future Farmers of America, California Grange, Young Farmers, California Feed Millers, California Wool Growers, California State Florists, California Pipe Trades Council, California Fertilizer Ass'n., California Beef Cattle Conference, and many others.

#### The Campus As a Laboratory

The Cal Poly campus serves as one composite laboratory for the Division's projects, student projects, and other enterprises. Horticulture students planted 18,000 square feet of new lawn and established an arboretum for tree testing and display. The Dairy Project Farm was improved with the placing of concrete floors in the feed barn and a parlor type barn was planned. The Foundation Dairy increased student employment with all milking performed by students for the first time. Land judging contests for high schools were aided by Soil Science students. Animal Husbandry students conducted a Range Fertilization Demonstration project on the campus. Feeding trials, for study and for industry, were conducted by Animal Husbandry students. Students in Field, Fruit and Truck Crops instituted a plan of replanting old orchards in a plant propagation program. Farm Management students used campus facilities to study ranch operations on the business side.

#### Veterinary Science

Principally a service department, Veterinary Science offered service courses of instruction related to the basic sciences and to control of disease in meat and dairy animals and poultry flocks. Post mortem inspection of animals slaughtered at the college abattoir also was provided.

## Scholarships and Industry Cooperation

Recognition of the instructional work being done by this Division was made in many ways by public groups and industry organizations. The program of securing farm machinery and equipment on a lease basis from major farm equipment companies continued to operate advantageously for Agricultural Engineering students instructionally and to the college financially. This year several companies which have leased new and up to date equipment and machinery furnished it on a loan basis. The Tractor and Implement Club of Southern California granted a new \$500.00 scholarship for Agricultural Engineering students in advanced status.

## Graduates

Employment demand for graduates of the Agricultural Division continued to be high. Agricultural Engineers were much in demand in the fields of power and machinery and soil and water conservation and utilization. The job placement record for graduates in Dairy Husbandry and Dairy Manufacturing was 100 per cent for last year. Placement opportunities in the Poultry Husbandry fields continued to exceed the number of Cal Poly graduates available. All graduates from Soil Science last year found employment in their fields of specialization, a survey revealed. A steady demand for such graduates continued this year in the fields of water conservation, technical sales, agricultural chemicals and soil specialties agencies. Graduates of Animal Husbandry maintained an excellent employment total with all Cal Poly graduates of 1957 indicating jobs in their field of interest.

## Fifth Largest Ag Division in U. S.

Cal Poly has the fifth largest Agricultural Division of 87 institutions which teach agriculture in the United States.

This was revealed in a recent study by Raymond B. Farnsworth, Acting Dean, College of Biological and Agricultural Sciences, Brigham Young University. Data for the study was based on enrollments in the Fall Term, 1957. Cal Poly's Agricultural Division total figures included those at the Kellogg-Voorhis campus.

Four colleges and universities with larger enrollments in agriculture than Cal Poly's are, in order: Iowa State College, Michigan State University, University of Minnesota and Cornell University. All four have larger total college enrollments than does Cal Poly with student bodies ranging from 9,826 at Iowa to 27,825 at University of Minnesota.

The study also analyzed agricultural enrollments by major departments. In this analysis, Cal Poly has the largest enrollment in the nation in Crops, Animal Husbandry and Horticulture. In Farm Management, Cal Poly ranked second to Ohio State University which had one more student. Cal Poly ranked third in Dairy enrollment, and tied for the second largest enrollment in Poultry Husbandry.

(For specific enrollment totals by Departments at Cal Poly, see Page 4).

## AGRICULTURE DIVISION

Kellogg-Voorhis Campus

Planning and expansion of facilities highlighted this Division's program this year. Virtually all the crop and livestock units needed for instruction and farming in the immediate future have been completed, are under construction or are budgeted. One exception is the large agricultural laboratory-classroom building projected for 1960-61.

New units for fruits and vegetables, ornamental horticulture, animal husbandry and poultry were completed. Contracts were let covering additional units--apiculture, wool, feed mill and additional glass and lath houses. It was anticipated that the Legislature would approve budgeting the \$500,000 agricultural engineering building.

A modest increase was noted in total enrollment, including limited students in two special courses in turf management and landscape estimating. A conspicuous increase in Agricultural Management and Sales majors and in Ornamental Horticulture-Landscape Architecture reflected demand for trained men in these fields in the fast-developing Southern California area.

Student projects and participation in judging contests abetted the instructional program. The division was host to numerous industry groups which held meetings and workshops on the campus. Some of these were American Society of Range Management, Pest Control Industries Conference, Farm Bureau Conference, California Agricultural Teachers' Association and California Association of Nurserymen.

Highlights of Departmental developments this year:

Animal Husbandry--A new bull was added to the Angus herd and 200 stockers and feeders were received. The sheep flock added Rambouillet ewes and a ram; 225 lambs were fed. More inbred lines of Minnesota hogs were added to swine operations and surplus boars were sold to breeders. By arrangement, Laboratory classes in slaughtering and meat handling were conducted at Chino Men's Institution. Two new staff members, a feedlot and marketing specialist and a meats specialist, were added.

General Crops--This Department continued to supervise all feed and field crop farming in addition to its student project and instructional program for 72 major students. Sprinklered sudan was planted for summer pasture for the Arabian horses. Improvement of lands under lease from Pacific State Hospital was undertaken.

Fruit Production--Student enrollment increased, the curriculum was broadened and made more flexible. Five scholarships were provided by Sunkist Growers, Inc. and affiliated Sunkist Managers' Clubs. Although 200 acres of citrus were lost to the campus building program, 10 acres of new orchard plantings were started, along with removal and replanting of the Voorhis campus peach orchard. Citrus plants on the Pacific State Hospital land continued to be rehabilitated.

Services and Inspection--Insect and disease collections and preserved fruit and vegetable specimens were added to instructional materials. Students visited incoming ships in Los Angeles harbor to observe Federal-State plant quarantine inspections. A well-attended two-day conference of pest control operators was hosted.

Ornamental Horticulture and Landscape Architecture--This Department (two 4-year majors) showed a 24 per cent increase in enrollment with 109 students in Landscape Architecture and 40 in Ornamental Horticulture. Eight new courses were offered and two new instructors added to the Landscape staff. The new instructional and growing unit on this campus was placed in service and irrigation lines laid in a 5-acre outdoor nursery area.

Soils Science--Two instructors taught a total of 12 courses and 300 students during the year, some of whom were taking the first two years of the major (to be completed at San Luis Obispo campus) but most of them were from other major departments. Two well-equipped laboratories were in service, augmented by new testing apparatus.



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Last year's graduates were selected by



#### Graduates

The size of the Cal Poly engineering graduate class for the past three years is as follows. Cal Poly's contribution to the engineering graduates will probably rank second in the amount number of engineering degree holders. The size of the engineering program is as follows:

1952-3	-	131
1953-4	-	110
1954-5	-	122

## ENGINEERING DIVISION

"In vain we build the world, unless the builder also grows."  
-Edwin Markham.

The education of young engineers who will be competent to deal with the fast-developing technologies of today and tomorrow is a broad aim of the Engineering Division. Practical purpose of the instruction is to teach basic fundamentals in engineering with the supporting science and mathematics and to apply those fundamentals to areas of engineering which include planning, construction, operation, manufacturing, sales and maintenance.

At Cal Poly there is continual effort made to prepare the student for the type of work an engineer usually experiences in his employment. This requires the Engineering Division to provide conditions that will develop proper student mental attitudes and the viewpoint of the application engineer.

Some of the criteria by which Cal Poly measures its success are enrollment trends, scholastic achievement, job placements, and industry recognition. This year, as it has since inception of the Engineering program, Cal Poly has scored high in these areas:

1. Enrollment continued to rise, with a 2289 total--a nine per cent increase over last year despite limited campus facilities in housing and increased engineering offerings at other State Colleges.
2. Academic aptitude of entering students has been rising for the last five years and this year was still at a high level (test methods changed this year for which no norm was available).
3. In a survey of 1957 graduates of Cal Poly engineering, the relationship of first jobs to college training was almost 100 per cent other than those in military service and graduate study.
4. Both private companies and governmental agencies recruit each year at Cal Poly for its engineer graduates and the list of firms considered to be prestige companies grows yearly. Last year's graduates were selected by Westinghouse, General Electric, RCA, Aerojet-General, Shell Oil, leading aircraft manufacturers, foremost electronics companies and topmost Naval research and development agencies as well as many excellent smaller companies and agencies in several engineering fields.

#### Graduates

The size of the Cal Poly graduating class in engineering continues to increase. Cal Poly's contribution to the annual national supply of engineering graduates will probably reach one per cent of the total this June. The annual number of engineering degrees granted since the inception of Cal Poly's engineering program is as follows:

1952-3	-	131	1955-6	-	143
1953-4	-	110	1956-7	-	229
1954-5	-	122	1957-8	-	345 (estim.)

The assistance given by the State Department of Education in dealing with the California Board of Registration for Civil and Professional Engineers has been helpful. Graduates of Cal Poly who pass the Engineer-in Training examination receive the same credit for education toward a professional license as do graduates of curricula accredited by the most exacting professional groups. Approximately 120 graduates of Cal Poly this June will take the E-in-T examination this Spring.

Although preparation for graduate study is not a principal objective of the Engineering Division, those graduates who wish to seek advanced degrees are well prepared to do so. Graduates of Cal Poly's Engineering Division have been accepted for graduate study at such colleges and universities as MIT, Cal Tech, Stanford, Harvard, Southern California, Illinois, Purdue, Case Institute and Kansas.

### Activities

This Division's activities governed by invitation of professional engineering groups were indicative of recognition this year:

1. Mechanical Engineering students captured the sweepstakes trophy in the annual Safety-Economy run sponsored by the Society of Automotive Engineers.
2. Students in Aeronautical Engineering competed in the annual student paper contest sponsored by the Institute of Aeronautical Science.
3. Some of the exhibits by students of this Division were presented at the Western Air Conditioning Show, the California Council of Architects' Convention, the Electrical Industries Exposition, American Welding Society Congress and the American Society of Tool Engineers Machine Tool Exposition.

A total of 1,056 students were members this year of nine recognized professional societies.

### Staffing

Maintaining an adequate and capable engineering staff of proper balance in formal education, teaching experience and industrial experience is a high aim of this Division. The qualifications of 20 staff members appointed in September, 1957, are an indication of the experienced engineers who believe strongly in the Cal Poly type of engineering program. Of the 20, the average teaching experience was 2.5 years and the average industrial experience was over 14 years. All staff members possessed at least a bachelor degree in addition to an occupational background and 20 per cent held advanced degrees in their respective fields.

Scholarships, GiftsENGINEERING

Scholarship grants and gifts to the College by industrial firms represent an indication of confidence in the Cal Poly engineering program. This year scholarships were awarded by the following:

Air Conditioning Industries, General Electric, U. S. Motors, American Society of Tool Engineers, Link Belt Co., Hewlett-Packard Co., Transicold Corp., John Badgley, AIA; Drayer-Hanson Co.

Equipment gifts made to assist instruction in the Engineering Division:

Petroleum Refinery Model, The Fluor Corp.; Magnetic Computer Drum, Rand Corp.; Hydraulic Servo, Moog Valve Co.; Air diffusers (seven), Krueger Air Conditioning Corp.; Pumping unit, Lufkin Foundry & Machine Co.; Twecotting holders (six), Tweco Products Co.; Printing equipment, Wall Street Journal.

Student Projects

Student personal growth depends upon several elements in this kind of instructional program--development of good work habits, ability to carry responsibility, incentive for initiative and an opportunity to put training to practical use. This Division provided opportunities to "earn while learning" through the College Foundation's project program. "Learning by Doing" was provided in the many instructional student projects, especially the Senior Project required of all fourth year students.

Student projects completed this year included the following, as an illustration of type and scope of work undertaken by students:

- Rapid root locus plotter
- Serial binary adder for a digital computer
- Closed loop pneumatic control system
- Hydraulic and mechanical servo demonstrator
- Dynamic balancing machine
- Hyperbolic paraboloid
- Helidon
- Analog to digital converter
- X-band magnetron pulser
- Installation of a heat pump
- Construction of equipment for study of a flooded Freon evaporator
- Installation of equipment for study of oil flow - refrigeration unit
- Design and layout of an aircraft stress lab
- Bar bending machine
- Device to determine lift of a rotating cylinder
- Photo-electric stress demonstrator unit for lab
- Feedback controlled recorder
- Milimicrosecond delay line
- Development of a process color wheel for printing inks
- Design and construction of tube-type sintering furnace
- Design and construction of electroplating equipment
- Design and construction of extrusion machine for polyethylene
- Design and construction of equipment for anodizing aluminum

## ENGINEERING DIVISION

## ENGINEERING

## KELLOGG-VOORHIS CAMPUS

This Division at the Kellogg-Voorhis Campus began instruction in the Fall Quarter of this year, with an enrollment of 222 students in Aeronautical, Electronic, Industrial and Mechanical Engineering. Commencing next Fall, complete course offerings in the first three years of each of the four majors will be available to all students. The full four-year program should be in operation in the Fall Quarter, 1959.

Enrollment this year exceeded estimates by some 90 per cent. Projected FTE enrollment for next year is 400.

A familiar problem on new campuses is recruitment of instructors and this campus was no exception in this respect. Interest was high in K-V teaching positions in Engineering but reaction developed over salary scales which are considerably under those of industry.

Construction of the new engineering buildings began in June, 1957. Total floor area of the four units approximates 87,400 square feet. Delays were encountered in completion of the buildings but the Shops building may be ready by next Fall Quarter. The classroom building delays will force revisions of the instructional program based on partial occupancy of the new facilities. Equipment such as machine tools and that used in heavy welding should be in operation next Fall Quarter as should the subsonic wind tunnel for which a contract was let this Spring.

Next Fall Quarter will mark a careful selectivity of eligible students since enrollment will have to be curtailed because of limited facilities to accommodate the large number of applications.

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K-V Engineering Applications High

A total of 186 applications for admission to Kellogg-Voorhis Engineering Division was recorded as of April 15, 1958 for the next Fall Quarter.

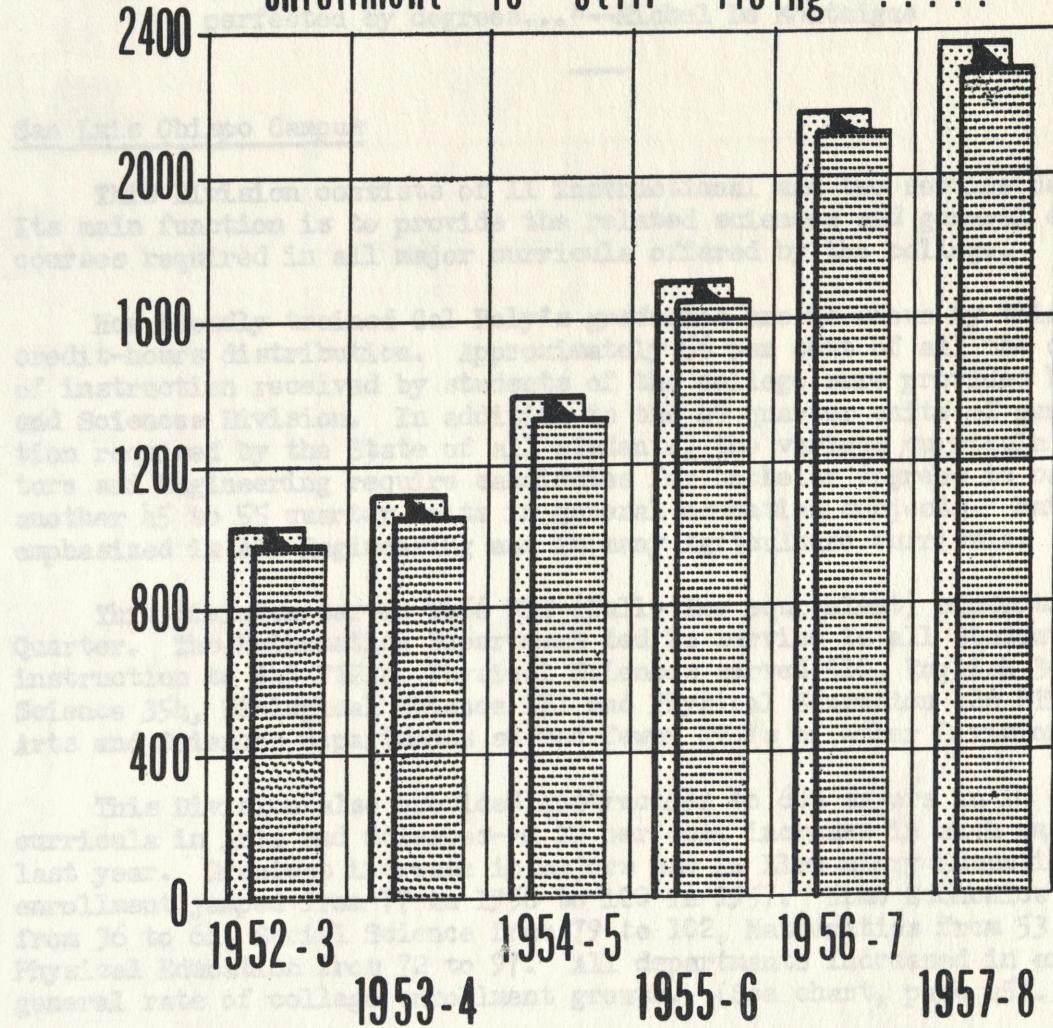
The Engineering total was 60% of the total number of applications received by K-V as of that date.

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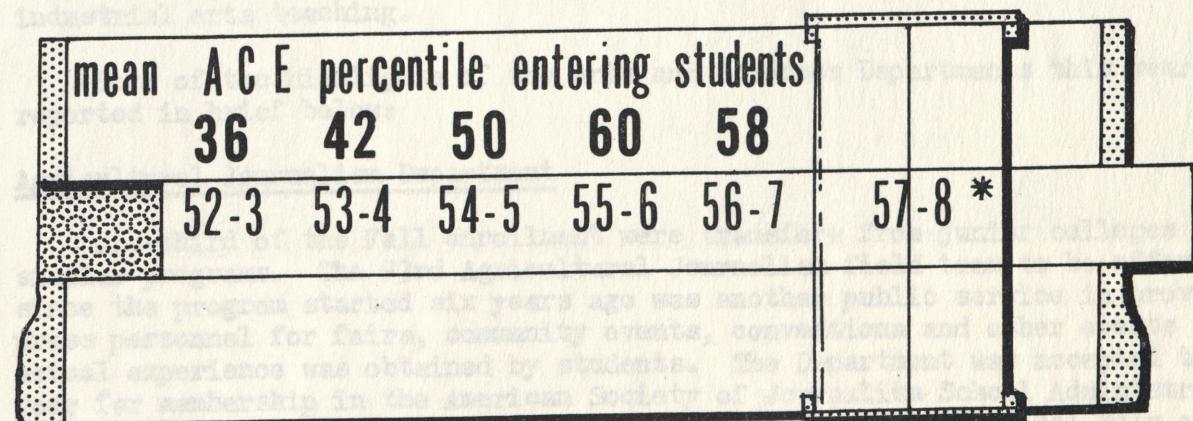
# ENGINEERING DIVISION

ARTS AND SCIENCE

enrollment is still rising . . . .



A new instructional department, Technical Sales, has been added to the Division for the Fall Quarter next year. The curriculum offers two options for leading into the field of industrial sales and service and the areas of technical and financial management.



academic aptitude of entering students  
is at a high level

\*S. C. A. T. test  
(no norm available)

## ARTS AND SCIENCES

"Arts and sciences are not cast in a mould but are formed and perfected by degrees..."--Michel De Montaigne

### San Luis Obispo Campus

This Division consists of 11 instructional and two service departments. Its main function is to provide the related sciences and general education courses required in all major curricula offered by the college.

How broadly trained Cal Poly's graduates are is shown by this year's credit-hours distribution. Approximately 56 per cent of all the credit hours of instruction received by students of the college were provided by the Arts and Sciences Division. In addition to the 45 quarter units of general education required by the State of all students, the various curricula in Agriculture and Engineering require candidates for bachelor degrees to complete another 45 to 55 quarter units in general education subjects. Mathematics is emphasized in all Engineering and in many Agriculture curricula.

This Division served 2456 FTE (full-time equivalent) students in the Fall Quarter. The Mathematics Department led in service to all students, providing instruction to 549 FTE's, Physical Sciences served 510, English 361, Social Science 354, Biological Science 271 and Physical Education 126 FTE's. Other Arts and Sciences departments served fewer FTE's of other Divisions.

This Division also provided instruction to 683 majors in 10 occupational curricula in Arts and Sciences--a 40 per cent increase in such majors over last year. Greatest increase in majors was in Elementary Education where enrollment jumped from 77 in 1956 to 120 in 1957. Home Economics increased from 36 to 64, Social Science from 79 to 102, Mathematics from 53 to 89, and Physical Education from 72 to 97. All departments increased in excess of the general rate of college enrollment growth. (See chart, page 45).

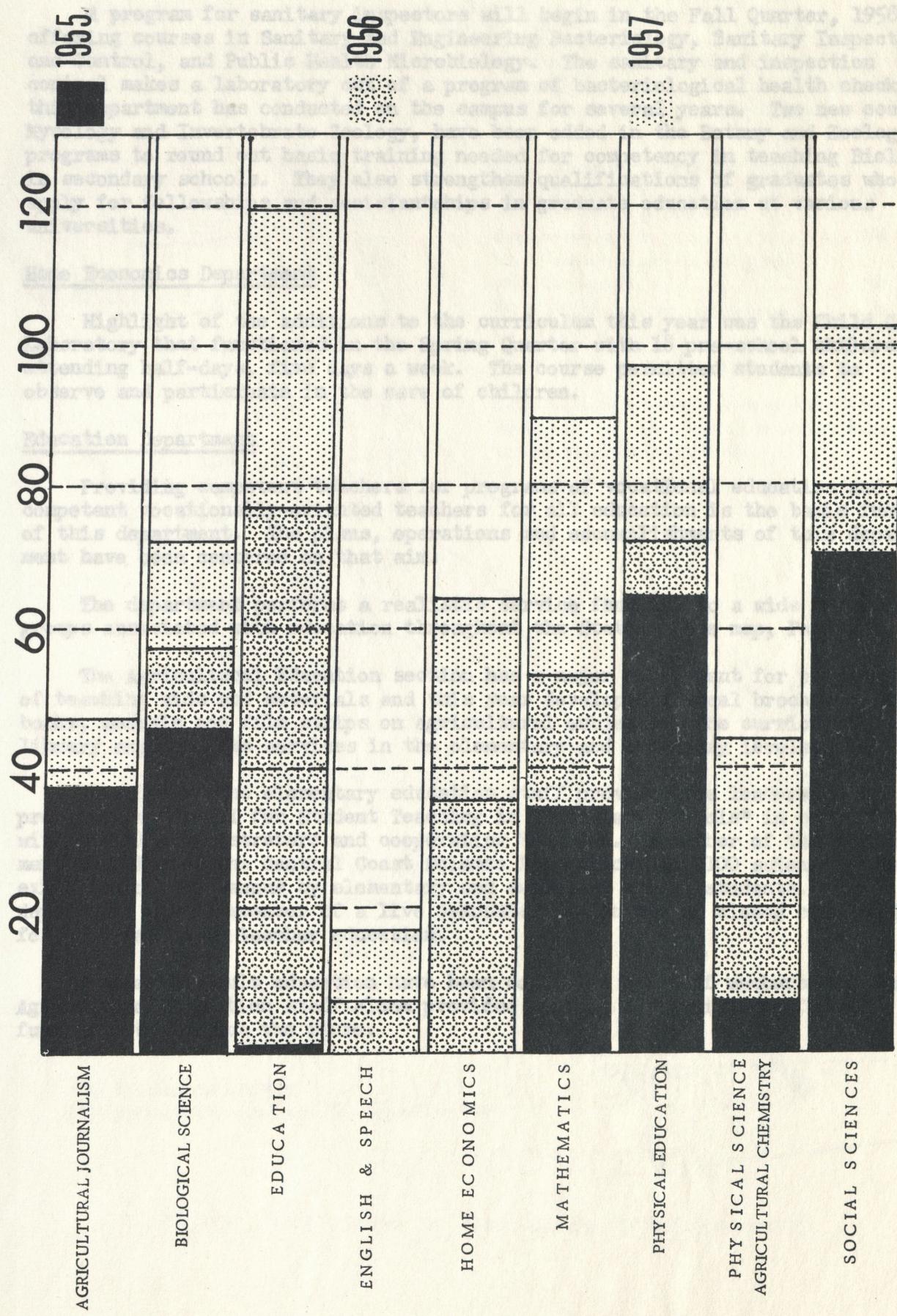
A new instructional department, Technical Arts, has been added to the Division for the Fall Quarter next year. The curriculum offers two options: one leading into the field of industrial sales and service and the other into industrial arts teaching.

Some of the highlights of the Arts and Sciences Departments this year are reported in brief below:

### Agricultural Journalism Department

One-third of the Fall enrollment were transfers from junior colleges or similar programs. The 93rd Agricultural Journalism field team to be offered since the program started six years ago was another public service in providing press personnel for fairs, community events, conventions and other events where actual experience was obtained by students. The Department was accepted this year for membership in the American Society of Journalism School Administrators. In the California Intercollegiate Press conference organized at Cal Poly and held this year in Fresno, with 15 colleges and universities represented, Cal Poly photography students won two first places and one second out of three events. Women students distinguished themselves in this department with participation on field teams and as journalistic interns. Jobs for graduates were plentiful.

ARTS AND SCIENCES DEPARTMENT



### Biological Sciences Department

A program for sanitary inspectors will begin in the Fall Quarter, 1958, offering courses in Sanitary and Engineering Bacteriology, Sanitary Inspection and Control, and Public Health Microbiology. The sanitary and inspection control makes a laboratory out of a program of bacteriological health checks this Department has conducted on the campus for several years. Two new courses, Mycology and Invertebrate Zoology, have been added in the Botany and Zoology programs to round out basic training needed for competency in teaching Biology in secondary schools. They also strengthen qualifications of graduates who apply for fellowships and assistantships in graduate education at various universities.

### Home Economics Department

Highlight of the additions to the curriculum this year was the Child Care Laboratory that functioned in the Spring Quarter with 18 pre-school children attending half-days, five days a week. The course permitted students to observe and participate in the care of children.

### Education Department

Providing competent teachers for programs of vocational education and competent vocationally-oriented teachers for all education is the basic function of this department. The plans, operations and accomplishments of this department have been centered on that aim.

The department performs a realistic service function to a wide range of groups associated with education throughout the State. (See map, Page 47).

The Agricultural Education section has a major assignment for preparation of teaching aids and materials and this year developed several brochures, handbooks, manuals and film strips on agricultural subjects. The curriculum library expanded its services in the elementary and secondary levels.

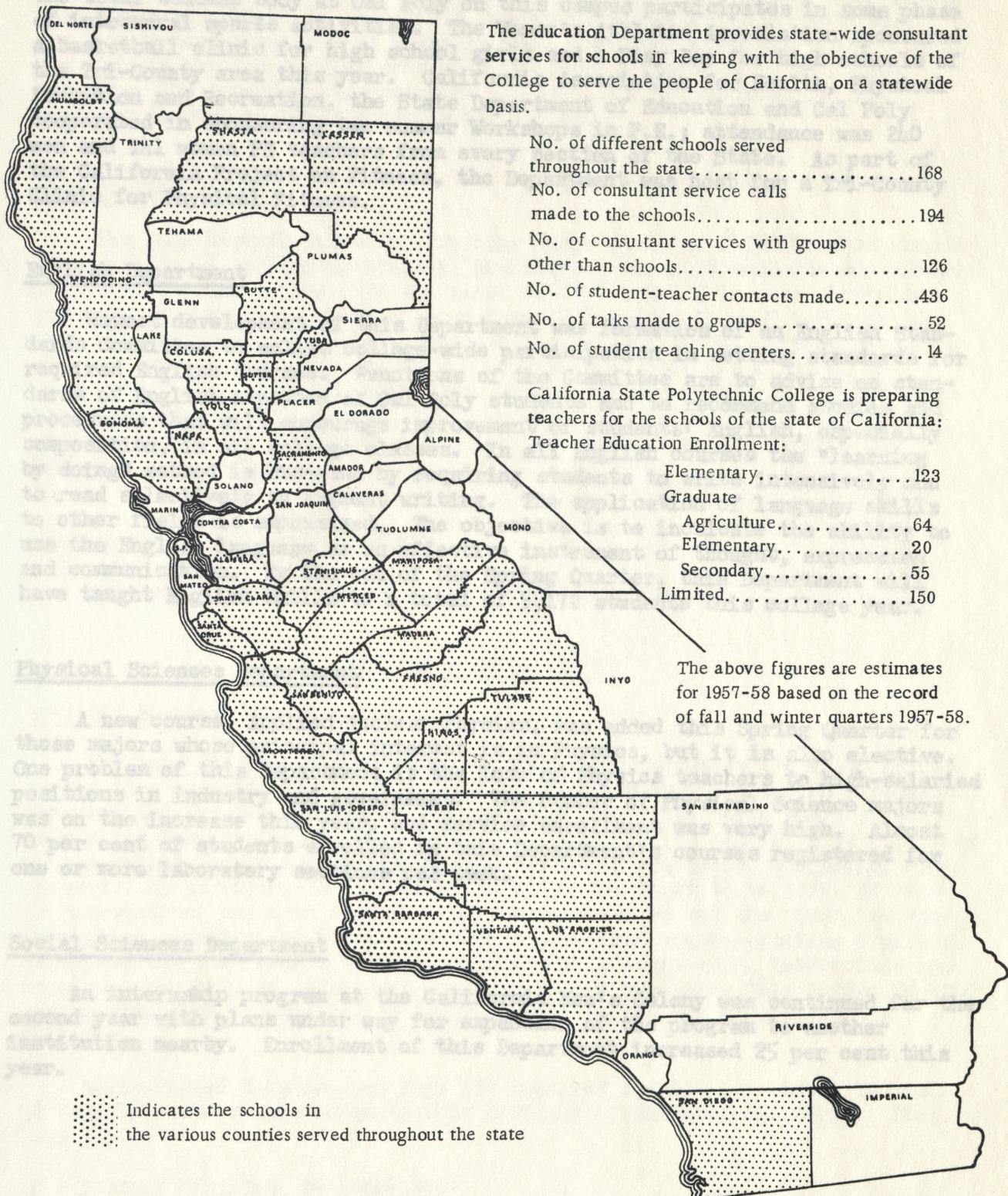
A member of the elementary education staff provided the leadership for preparing a "Manual for Student Teaching in Elementary Schools" in cooperation with school administrators and cooperating teachers. A member of the department coordinated the Central Coast Science Fair which had 1100 science projects exhibited on the campus by elementary and secondary school students. The department was co-sponsor of a live demonstration on use of closed circuit TV for observation in teacher education.

Classes in adult education have been conducted by staff members and the Agricultural Education staff alone provided service and assistance for 45 functions throughout the State.

influence the schools in  
the various countries served throughout the state

## Physical Education Department

## EDUCATION DEPARTMENT



### Physical Education Department

A recent survey of participants indicated that more than 50 per cent of the total student body at Cal Poly on this campus participates in some phase of intramural sports activities. The Women's Athletic Association sponsored a basketball clinic for high school girls and a Play Day for high schools of the Tri-County area this year. California Association for Health, Physical Education and Recreation, the State Department of Education and Cal Poly cooperated in sponsoring two summer Workshops in P.E.; attendance was 240 men and 141 women PE teachers from every section of the State. As part of the California Project on Fitness, the Department was host for a Tri-County Clinic for Physical Fitness.

### English Department

Newest development of this Department was formation of an English Standards Committee to enlist college-wide participation in setting standards for required English courses. Functions of the Committee are to advise on standards of English expected of Cal Poly students and to recommend studies and procedures that will encourage improvement of students' English, especially composition, in all college classes. In all English courses the "learning by doing" method is stressed by requiring students to write intensively and to read selectively to augment writing. The application of language skills to other fields is emphasized. The objective is to inculcate the ability to use the English language as an effective instrument of thought, expression and communication. By the end of the Spring Quarter, this Department will have taught English skills to a total of 5,172 students this college year.

### Physical Sciences Department

A new course, Applied Nuclear Physics, was added this Spring Quarter for those majors whose principal interest is in Physics, but it is also elective. One problem of this Department is the loss of Physics teachers to high-salaried positions in industry and government. The number of Physical Science majors was on the increase this year, and service enrollment was very high. Almost 70 per cent of students enrolled in this Department's courses registered for one or more laboratory sections per week.

### Social Sciences Department

An internship program at the California Men's Colony was continued for the second year with plans under way for expansion of the program to another institution nearby. Enrollment of this Department increased 25 per cent this year.

Audio-Visual Service (see Page 33) acquired a full-time technician and 12 faculty members were added to this Division's instructional forces. (See Page 33).

Library Services, see Page 33.

### Music Department

This year the vocal music groups gave 130 performances. Concerts were given by the Men's Glee Club of 90 members, Women's Glee Club of 45 members, Barbershop singers of 12 members, a four-man quartet and eight soloists. The annual week-long tour of these groups, excepting the Women's Glee Club, was made to the Los Angeles area where 20 programs were heard by 23,000 persons. The Department's orchestra now includes women students. This Spring a 14-member string ensemble was formed.

### Military Department

The Army Reserve Officers' Training Corps Class of 1957 finished summer camp with No. 1 ranking in over-all proficiency among 30 colleges and universities of the Sixth Army. In the class of 1958 a Cal Poly cadet battalion commander finished No. 2 out of more than 1200 cadets from 30 colleges in over-all military proficiency. At each Federal and Annual Inspection during the last three years, the Military Department has received a rating of "superior." This inspection includes academic instruction, as well as military training procedures. The ROTC enrollment by Cal Poly Instructional Divisions is: 101 in Engineering, 63 in Agriculture and 33 in Arts and Sciences.

### Library and Audio-Visual Services

For report on Library and Audio-Visual, see Page 33.

## KELLOGG-VOORHIS CAMPUS

### Arts and Sciences Division

The Arts and Sciences Division on this campus accepted its first majors during this academic year. A total of 39 students enrolled in the Biological Sciences and Physical Education Departments. The first three years of curriculums for Business majors are planned for inauguration next Fall by offerings in Accounting, Business Administration, Marketing and Sales, and Office Management. In addition, it is planned to offer the first three years of work in Mathematics, Physical Sciences and Social Sciences and the first two years in English, starting next Fall Quarter, as approved degree-granting programs. This year for the first time work was offered in Engineering Mathematics and Physics. The Physical Education Building became available this Spring Quarter and construction is expected to begin shortly on the Business Classroom Building.

Audio-Visual Service (see Page 33) acquired a full time technician and 12 faculty members were added to this Division's instructional force. (See Page 33).

Library Services, see Page 33.