

SCHILLING INSTITUTE

Salina, Kansas

GENERAL INFORMATION BULLETIN

Fall Semester 1966 Through
Summer Session 1968

Volume I

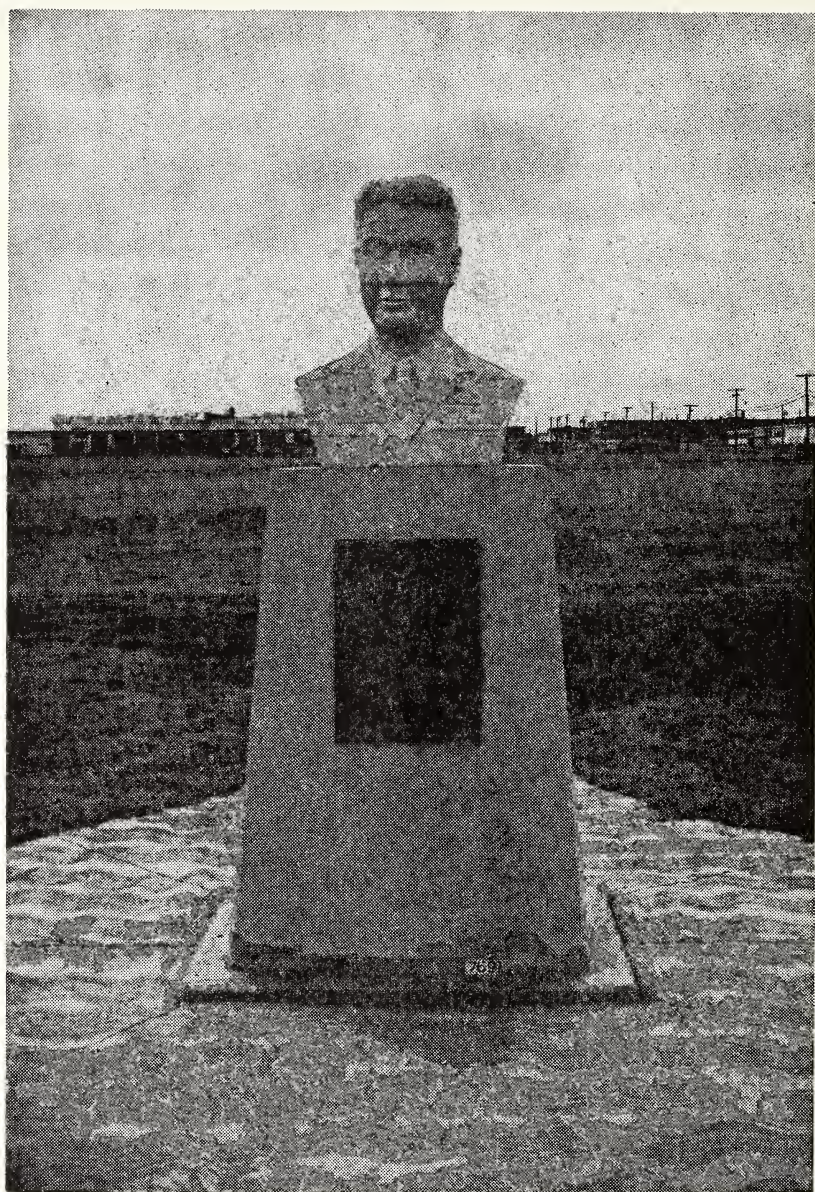
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Table of Contents

	PAGE
Table of Contents	3
Colonel David Carl Schilling	4
State Education Authority	5
Institute Calendar	7
President's Message	8
Purposes of the Institute	9
Technical Institute	10
Institute Campus	12
Admission	13
Out-of-State Applicants	15
Fees and Expenses	17
Operation of Motor Vehicles	19
Housing	20
Food Service	21
Student Welfare and Services	22
General Information and Regulations	25
Curricula	29
Aeronautical Technology	31
Civil Technology	33
Computer Technology	35
Detail and Design Technology	37
Electronic Technology	39
Description of Courses	41



COLONEL DAVID CARL SCHILLING

The Kansas Legislature retained the name of Schilling for the State's Technical Institute in memory of the World War II Air Force hero. Colonel Schilling was born at Leavenworth, Kansas, and lost his life in an automobile accident in England on August 14, 1956, while serving as a member of the Strategic Air Command. During his career as a fighter pilot, Colonel Schilling was credited with shooting down twenty-three (23) German planes. For his combat achievements, he was awarded the Distinguished Service Cross, the Silver Star, the Distinguished Flying Cross, the Air Medal, the British Distinguished Flying Cross, the French Croix de Guerre, and numerous other honors.

STATE EDUCATION AUTHORITY

The Board charged with the responsibility of establishing Schilling Institute is the State Education Authority composed of three (3) members, with the State Superintendent of Public Instruction serving as Chairman of the Authority. Present members of the Authority are:

ADEL F. THROCKMORTON—State Superintendent of Public Instruction.

PAUL E. RUSSELL—Dean, College of Engineering, Kansas State University.

LAURIN W. JONES—Businessman and Educational Leader, Dodge City.

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Institute Calendar

Fall Semester

	1966-1967 School year	1967-1968 School year
Registration and orientation..	September 6-7	September 5-6
Classes begin	September 8	September 7
Last day to register	September 17	September 16
Thanksgiving vacation	November 23-27	November 22-26
Christmas vacation	Dec. 21-Jan. 3	Dec. 20-Jan. 2
Fall semester ends	January 20	January 19

Spring Semester

Registration and orientation..	January 23-24	January 22-23
Classes begin	January 25	January 24
Last day to register	February 4	February 3
Spring vacation	Mar. 25-Apr. 2	March 23-31
Spring semester ends	May 26	May 24

Summer Session

Registration and orientation..	June 5	June 3
Classes begin	June 6	June 4
Last day to register	June 10	June 8
Summer session ends	August 4	August 2

PERSONAL MESSAGE FROM THE PRESIDENT

The establishment of Schilling Institute as the Technical Institute of the state of Kansas is recognized as a milestone in the higher education system of the state.

Economic and industrial growth is related to the quality of technical education programs offered to and actively supported by the state's citizens. Industrial development is dependent on the highly trained technical personnel in the state's labor force.

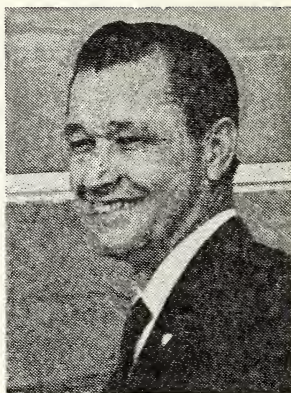
Kansas, with the establishment of Schilling Institute, has the capability necessary for training the technical personnel so urgently needed by the existing industries and demanded by industrial prospects. The professional programs offered by our universities and colleges as well as the many skill and vocational programs being developed in the area vocational schools, will be complimented by the two year semi-professional technology programs offered by Schilling Institute.

We cordially extend an invitation to all citizens to visit with us about our technology programs.

If you have the interest and ability, we are here to help you in seeking a better position in life.

Sincerely,

HENRY M. NEELY, P. E.,
President.



Purposes and Philosophy of Schilling Institute

The philosophy supporting the development of Schilling Institute is based on the principle that for every student who has the capacity, incentive, and resources to pursue technological education to a bachelor's or an advanced degree, there are many who have the capacities, interests, and aptitudes to develop productive and rewarding careers in the expanding realm of applied science and in the technologies which neither require nor justify four or more years of collegiate study.

The basic objective of Schilling Institute is to provide competent educational programs at the collegiate level through which qualified students may achieve a maximum development of their individual talents as preparation and inspiration for productive and rewarding careers in private or public services.

Although major emphasis is placed upon technology, science, and mathematics, Schilling Institute offers related courses in the social science and communication fields in an effort to provide the student with the background necessary for social and economic growth. In addition to instruction in specific technical fields, each program at Schilling will include courses in written and oral communications, basic economics, and industrial relations. The institute seeks to develop the abilities of its students not only in the area of their technical specialties, but also in their ability to communicate and work with others. Every effort is made to provide a broad educational program to aid graduate technicians as they advance into positions of leadership in their chosen fields.

The Technical Institute

Schilling Institute was created by the Kansas Legislature in the General Session of 1965, when authorization was granted for the establishment of the institute on the site of the deactivated Schilling Air Force Base at Salina, Kansas.

The institute offers two-year semiprofessional programs in technical education. Each program is occupationally oriented and is designed to prepare students for immediate employment upon graduation. The Associate Degree will be granted to those persons satisfactorily completing the curricula requirements. It is the only institution of its kind in the state of Kansas. The institute works closely with industries and business enterprises who need highly-trained technicians and is continually exploring the need for educational programs in technological fields in an effort to keep abreast of the demands of our state and nation for specialized technicians.

The field of engineering has changed radically during the past two decades because of the astounding advances in modern industrial technology. The average interval of time between a scientific discovery and its practical application in industry has been reduced from five to ten years to five to ten months, with the result that most engineering programs in institutions of higher learning are now heavily oriented toward basic science with the major emphasis on Physics, Electronics, Computers and Automation.

Since the modern engineer has had to abandon the broad area of applied engineering work, the engineering technician has evolved to handle this aspect of technology.

Although technicians do not receive as much training as engineers in the mathematics and physics required in the complexities of today's technology, they must, nevertheless, be well-grounded in the fundamentals of these subjects so that they can properly interpret the plans of engineers or scientists. The technician must also receive a broad practical education in order to develop sufficient skills and management abilities to qualify for a position in construction, installation, operation and maintenance of machinery and mechanical and electronic equipment; or as a foreman, inspector, estimator, or service supervisor; or as a laboratory technician or engineering aid in an industrial research laboratory.

Students completing a program of education at Schilling Institute will be prepared to preform an economic service for their employers with a minimum of on-the-job training. Graduate technicians will serve as the liaison between the professionals and the skilled

workers. In their role as the connecting links, technicians will have knowledge of the work of both the professionals and the skilled workers. Technicians will translate creative ideas into new machines, products, structures, or processes. They will be familiar with the hand and machine tools of skilled workers and they will understand the basic scientific principles that are the tools of the professionals in their fields.

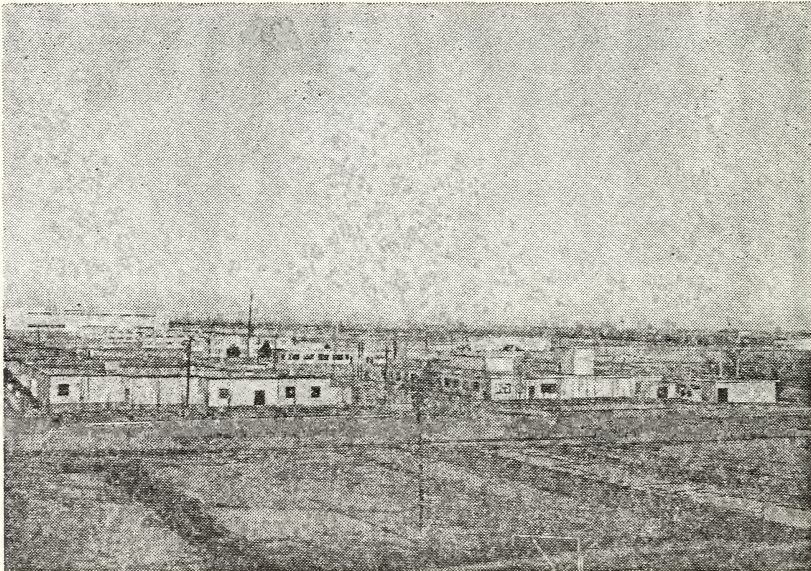
Schilling Institute Campus

The Schilling Institute campus is located approximately three (3) miles southwest of Salina, Kansas. It is located approximately one-quarter ($\frac{1}{4}$) mile west of the Schilling Road interchange on Interstate Highway 35W and approximately three (3) miles south of the interchange of Interstate Highways 35W and I-70.

The campus is divided into two (2) major areas. The educational complex of buildings consists of nineteen (19) buildings including two (2) aircraft hangars. The instructional program facilities provide modern and efficient space allotments for classroom and laboratory instruction.

The second complex of buildings, approximately one-quarter ($\frac{1}{4}$) mile south of the instructional area, provides the student residence and supports facilities necessary for a well-rounded campus. Included are twenty-six (26) student dormitories, dining halls, gymnasium, auditorium-theater, library, student activity center, chapel, swimming pool, tennis courts, and athletic fields. In total, there are forty-one (41) buildings in this second major area. The campus of the institute totals some one hundred eighty-two (182) acres.

The physical facilities of Schilling Institute are of modern functional design and provide complete, efficient, and pleasing surroundings for both student and faculty.



AERIAL VIEW OF EDUCATIONAL AREA

Admission

Students interested in attending Schilling Institute should contact the Director of Admissions requesting an application for admission. The student should complete the application form, indicating the curriculum in which he plans to enroll, and return it to the Admissions Office. All correspondence with respect to admissions should be addressed to the Director of Admissions.

Admission Requirements

Applicants for Admission to the technology programs offered at Schilling Institute should be graduates of an accredited high school. Although specific courses of instruction in high school are not required for admission of Kansas residents, an applicant's high school background should stress courses in Communications, Mathematics and Physical Sciences. If possible, students planning to attend technical institutes should include the following units in their high school programs:

(A) *English*—Three (3) units.

(B) *Mathematics*—One (1) unit advanced level Algebra, one-half ($\frac{1}{2}$) unit Plane Geometry, and one-half ($\frac{1}{2}$) unit of Trigonometry.

(C) *Science*—One (1) unit of Chemistry, and one (1) unit of either General, Biological, or Physical Science.

Under certain conditions, applicants who are not graduates of an accredited high school at the time of matriculation may be admitted to Schilling Institute. Such applicants will be required to take additional testing and will be required to appear for an interview with Schilling Institute representatives prior to acceptance or rejection of their application for admission.

The technical institute student should possess the following qualities, which are fairly reliable predictors of scholastic achievement and success in this level of technical education:

(a) An average or above-average record for four (4) years of high-school work or a similar record of equivalent training and education.

(b) An aptitude, skill and interest in mathematics (especially algebra, science (especially physics) and English.

(c) Some mechanical aptitude and manual dexterity.

(d) An ability to grasp the basic concepts of applied technology.

(e) A genuine interest in and enthusiasm for some technical field.

(f) Determination and willingness to work hard.

(g) Ability to work with and influence other people.

Transfer Students—Advanced Standing

Applicants may be accepted for enrollment by transfer from an approved university, college, junior college or technical institute if their records indicate the ability to successfully complete the courses included in their chosen curriculum.

Students may be admitted to advanced standing if credits earned at other institutions are accepted by the Institute's Evaluation Committee. In some cases, special examinations may be required to evaluate credits earned at other institutions.

Credit by Special Examination

Credit in any subject may be granted by special examination. In general, permission to take a special examination is granted by the administrative head of the technology curriculum in which the student is enrolled. Grades received on special examinations will be placed in the student's permanent file. A student requesting permission to take a special examination for course credit may be required to pay an examination fee.

Medical Examination

A complete medical examination is required of each new student. Applicants who have been tentatively accepted for admission at Schilling Institute will be mailed a medical form which should be given to their family physician at the time they appear for a medical examination.

The medical report, filed with the institute by the student's family doctor, will become a part of the student's confidential file. The purpose of the report is to evaluate the student's state of health, determine remedial defects, detect infections or contagious conditions and to provide a medical history in case a student requires medical aid while attending school.

American College Test (ACT)

All applicants for enrollment at the institute will be required to take the American College Testing Program (ACT) tests prior to enrollment. High-school students should arrange with their counselor or principal to take the tests during their senior year and request that these scores be sent to the Director of Admissions at Schilling Institute. Other applicants may contact a local high school or the Admissions Office at the institute for test information on the American College Testing Program.

Special Students

A limited number of courses will be open to individuals who wish to enroll as special students. Prior to acceptance, special students must provide the information necessary to determine if they have the required background of education or experience to successfully complete the specific course, and in most cases, must obtain written permission from the instructor to enroll in the course. Special students may take a course for credit or they may audit the course if they have no intention of taking the course for credit at some later date. Auditors will not be required to take examinations, nor will they receive credit on their transcript for completion of the course. In either case, regular semester hour fees will be charged.

Out-of-State Applicants

Out-of-state applicants for admission to Schilling Institute will be required to pay nonresident fees (see fee schedule) and generally must have a good academic rank in their high-school graduating class. The residence of students entering Schilling Institute is determined by an act of the legislature (Sec. 76-2701, Kansas Statutes Annotated, Volume 6) which reads as follows:

"Persons entering the state educational institutions who, if adults, have not been, or if minors, whose parents have not been residents of the state of Kansas for six (6) months prior to matriculation in the state educational institutions, are nonresidents for the purpose of payment of matriculation and incidental fees: *Provided further*, That no person shall be deemed to have gained a residence in this state for the aforesaid purpose while or during the elapse of time attending such institution as a student, nor while a student of any seminary of learning, unless, in the case of a minor, his parents shall have become actual residents in good faith of the state of Kansas during such period, or unless, in the case of the minor, he has neither lived with nor been supported by his parents or either of them for three (3) years or more prior to enrollment and during said years has been a resident in good faith of the state of Kansas."

Foreign Applicants

The credentials of applicants from foreign countries are evaluated in accordance with the general regulations governing admission. An application and detailed transcripts of records must be submitted to the institute six (6) months in advance of reopening of the class in which the applicant seeks to gain admission. This will allow time for the exchange of necessary correspondence and documents relative to the securing of passports and visas for study in the United States. Candidates for admission must complete all arrangements for the necessary American dollars to cover tuition and living expenses and must furnish advance proof according to the amount shown on the certificate of eligibility of the U. S. Emigration Service, Form 1-20A.

Candidates for admission are required to consult the American Embassy in their country of residence and make arrangements to take an English language examination. The results of this examination are an important factor in determining the acceptability of an applicant. Schilling Institute must receive this information directly from the Consular's Office before a decision concerning admission will be reached.

Foreign students will be considered nonresidents for the purpose of paying student fees.

Fees and Expenses

The amount a student spends and the actual cost of obtaining an education at Schilling Institute are two (2) different items. A student can anticipate certain fixed expenses, such as enrollment fees, but beyond that, financial outlays depend to a considerable extent on the personal habits and management ability of the student. An estimate of the cost of attending Schilling Institute for two (2) regular semesters and a summer session for a Kansas resident follows:

Fees	\$332.00
Books and supplies	150.00
Room and board (on campus)	850.00
Total estimated cost *	\$1,332.00

* Exclusive of expenditures for clothing, laundry, travel, social activities and other miscellaneous expenses.

When considering the feasibility of attending Schilling Institute, it must be remembered that the institute's educational programs are designed to permit the qualified student to complete his education in four (4) regular semesters and one (1) intervening summer session. Eliminating miscellaneous expenses, the student can expect to finance his complete educational program at Schilling Institute for a cost of approximately \$2,500.00.

Enrollment Fees

Fees at Schilling Institute are established by the State Education Authority and are subject to change at any time. Following is a description of the current student fees at Schilling Institute:

REGULAR SEMESTER FEES

	Kansas resident	Non-Kansas resident
Incidental fees	\$115.00	\$345.00
Student health	7.00	7.00
Student activities	8.00	8.00
Total	\$130.00	\$360.00

STUDENTS ENROLLED IN SIX SEMESTER CREDIT HOURS OR LESS

	Kansas resident	Non-Kansas resident
Incidental fees (per semester credit hours)	\$8.00	\$24.00
Student activities	3.00	3.00

SUMMER SESSION FEES

	Kansas resident	Non-Kansas resident
Incidental fees (per semester credit hours)	\$8.00	\$24.00
Student health	4.00	4.00
Student activities	4.00	4.00

Students enrolling or paying fees after the regularly scheduled enrollment period and prior to the last day to register (See Institute Calendar) are assessed a late enrollment fee of \$5.00.

Incidental Fee

The Incidental Fee is used to pay, in part, costs of administration, operation and maintenance, equipment, library books, and other supplies. This fee constitutes approximately 15 to 20 percent of the total cost of instruction.

Laboratory Fees

Miscellaneous laboratory expenses are included in the incidental fee and are used to cover replacement, breakage and repair of equipment and supplies used in laboratory instruction. However, students will be required to provide their own slide rules, small hand tools, drafting instruments and similar personal equipment necessary in their chosen technology. A listing of the minimum requirements of such items will be issued by the class instructors.

Student Health Fees

Student Health Fees are used to provide first aid and emergency medical treatment on the campus. Arrangements are made with a Salina medical clinic to provide medical care for Schilling Institute students, when required, at the student's expense. A student medical-hospitalization group plan is available to students and dependents.

Student Activity Fees

The Student Activity Fees are used for student activities, including intramural sports, student organizations, religious oriented activities, and student union activities.

Payment of Fees

Each student must pay the total amount of enrollment fees on the day of enrollment. Checks drawn on out-of-town or local banks are acceptable. Also, students living in institute housing facilities must make the initial payment (by separate check) on their room and board contract at the time of enrollment.

Refunds

A student who enrolls at Schilling Institute, but who finds it necessary to withdraw from school, is entitled to a refund of enrollment fees ranging from approximately 80 percent during the first week of instruction to no refund after the completion of the fourth week during a regular semester or after the second week of a summer session. Refunds for room and board payments are determined on a prorated basis.

Applicants who have been accepted for admission by Schilling Institute, but who fail to enroll will not be refunded the \$10.00 deposit which must accompany the applicant's application for admission.

Operation of Motor Vehicles

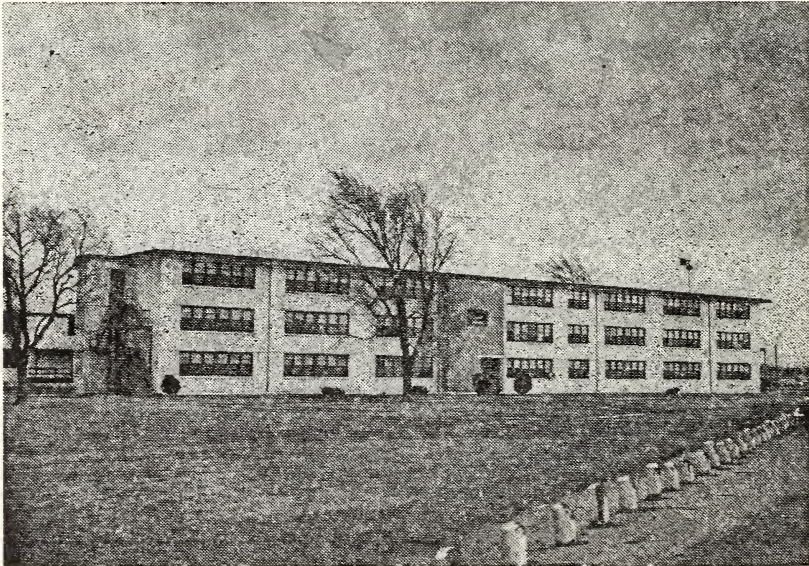
Students enrolled at the institute who wish to operate motor vehicles on the campus must register their vehicle with the Business Office. Upon payment of a parking and use fee, established by the Traffic Control Board, the student will be issued an identification sticker permitting parking in all non-restricted parking areas. Violation of traffic and parking regulations will be subject to progressive fines and, if excessive, may result in dismissal from the Institute.

Housing and Food Service

Recognizing the benefits to be gained from experience in group living, Schilling Institute provides modern dormitory and dining facilities for students enrolled in a resident instruction program. All first year, single students are required to live in institute dormitories, unless special permission is received from the Director of Student Affairs for a student to live in approved off-campus housing.

Dormitory rooms are reserved by paying a deposit of Twenty-Five Dollars (\$25.00) which is not refundable after August 15. Reservations, including the deposit, should be made as early as possible. As soon as an applicant's reservation has been confirmed by the Institute's Housing Department, contracts for room and board will be sent to applicants for their signature. Housing regulations, refund policies, and campus rules of conduct will be printed on and attached to the contract and each student must agree to abide by these rules and regulations.

Dormitory facilities are designed to accommodate two (2) students per room. All rooms are equipped with single beds, adequate storage, and comfortable furniture. Weekly laundered bed linen and towels will be furnished for \$25.00 per semester. Blankets and other incidental room furnishings are supplied by occupants. Students desiring single rooms, when available, are charged special rates as set forth on the housing contract.

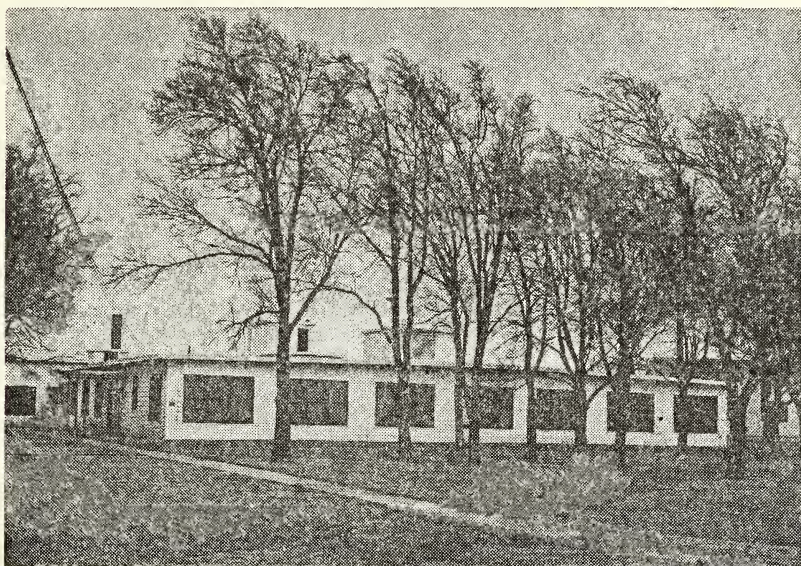


STUDENT DORMITORY

Food Service

The institute provides pleasant cafeterias conveniently located to the dormitory complex for the convenience and enjoyment of students, staff and visitors. The preparation of food is under the supervision of qualified dietitians to insure balanced and wholesome meals.

The meal contract for students residing in institute dormitories include twenty-one (21) meals per week. Institute housed students will not be entitled to a refund if they miss meals.



STUDENT CAFETERIA

Student Welfare and Services

The primary goal of Schilling Institute is to prepare its students for rewarding and satisfying careers in their chosen areas of specialization. To attain this goal, the institute not only provides educational opportunities in the classroom and laboratories, but also provides the means whereby students can develop their individual talents and meet their many nonacademic needs.

Health Service

Facilities for emergency first aid and minor medical services are provided on the institute campus. The health center, under the direction of a competent registered nurse, is operated daily for specified periods for the convenience of the student. Injuries or illnesses which require the attention of a physician are referred to a Salina medical clinic which has agreed to perform any medical service required by a student at Schilling Institute. The cost of this service, of course, will be assumed by the student.

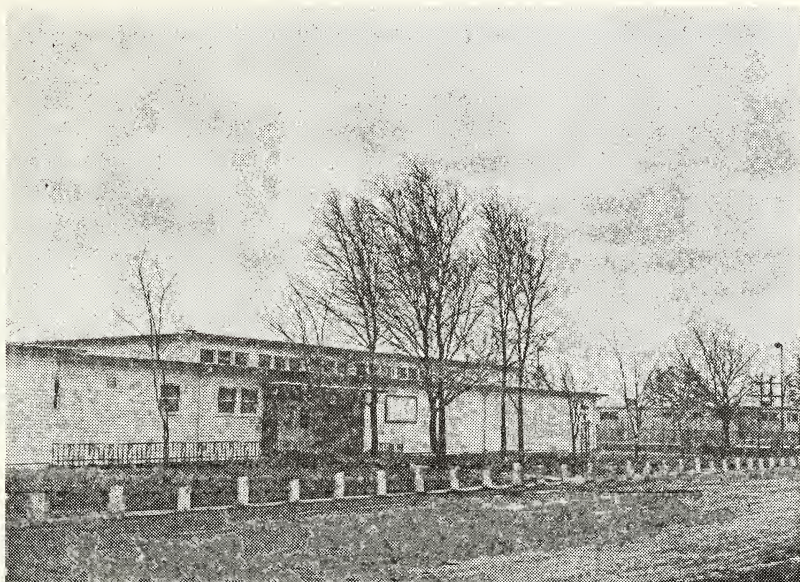
A special student health and accident program is available to all students enrolling at Schilling. This program is optional but deserves serious consideration from students who are not covered under some form of medical insurance or for those who wish to supplement their existing coverage. Representatives of the insurance agency will be available to explain and enroll students in the program in conjunction with the institute's regular enrollment schedule.

Placement Service

Schilling Institute maintains close contact with numerous industries and business firms who are interested in graduates of Technical Institutes as prospective employees. Students taking advantage of the institute's Placement Center are given the opportunity to discuss their employment goals with representatives of these firms during the final year of their educational programs. These discussions may take place on the campus, or if feasible, the student is provided the opportunity to visit the site of the firm itself in order to obtain a clearer picture of the working conditions and operations of the business establishment.

The Placement Center does not limit its service to graduates of the institute. A complete and current file of part-time job opportunities is maintained for the use of students who are interested in supplementing their income while they are enrolled in their educational program. Whenever possible, part-time employment

will be related to the student's chosen curriculum. This will give the student the opportunity to supplement his income as well as permit him to apply some of the knowledge he has gained in regular classroom and laboratory studies.



STUDENT UNION

Student Activities

A wide range of student activities is provided for the enjoyment and development of the student. These activities are widely diversified and all students, regardless of their personal interests, should find a group or club which will appeal to their special interests.

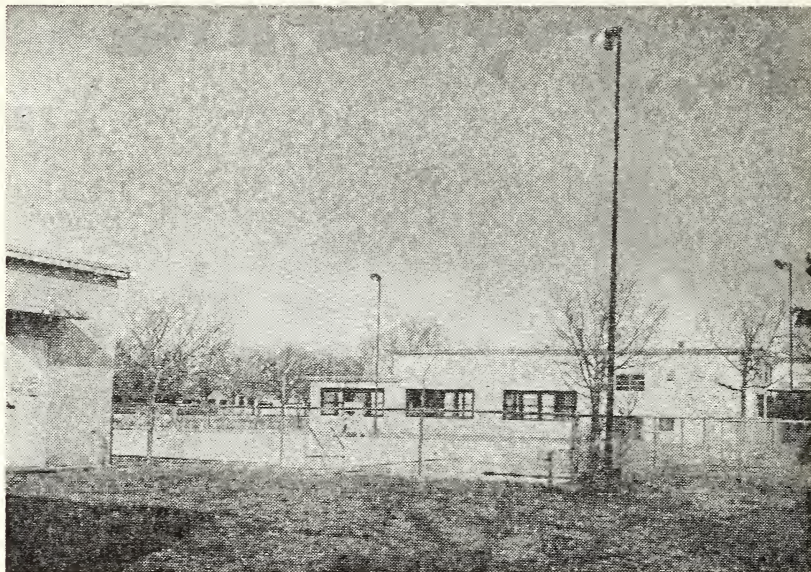
Students are urged to take an active role in the development of a Student Governing Association. The Governing Association will participate in the development of basic codes of conduct, dress, disciplinary measures, and other facets of the administrative organization and control of the institute by submitting recommendations for consideration to the Institute Administration.

Recreation and Intramurals

Recognizing the benefits to be derived from activities other than those connected with formal instruction, Schilling Institute has facilities for a well-rounded program of recreation and entertainment for its students.

Students will be urged to form teams for intramural competition in such sports as flag football, basketball, softball, volleyball, tennis, handball, squash, and badminton. In some instances, a small fee may be assessed for participating teams or individuals to defray the cost of trophies and other awards of achievement.

Various social events will be scheduled throughout the year for the social development and enjoyment of students at the institute. In most cases, the planning and organization of social activities will be the responsibility of representatives from the student body.

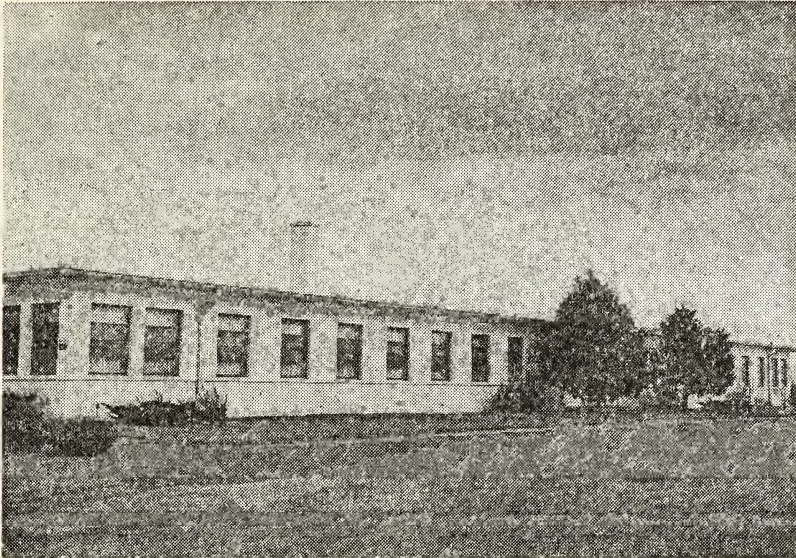


SCHILLING SWIMMING POOL

Counseling

Schilling Institute administrative and faculty personnel are available at all times to counsel students in their educational programs and to help the student who seeks vocational guidance. Students will find that institute personnel are eager to contribute their training and knowledge to aid students in solving their specific problems.

Each student at Schilling Institute will be assigned a faculty advisor and students are urged to take their academic problems and questions to their advisors for counsel and assistance. A student's personal or nonacademic problems may be discussed with personnel of the Dean of Students Office at any time or, in some instances, the student may prefer to discuss these problems with his faculty advisor. In either case, every effort will be made to help students through personal counseling and guidance while they are enrolled in an educational program at Schilling Institute.



ADMINISTRATION BUILDING

General Information and Regulations

The academic year at Schilling Institute is divided into two (2) semesters and a summer session. The student carrying the prescribed credit hour load and making normal progress can graduate, in most technologies, after the completion of four (4) semesters and the intervening summer session. Classes are in session Monday through Friday each week except as noted in the institute calendar. In addition, certain courses may be scheduled on Saturday or during the noon hour. Each day is divided into ten (10) fifty (50) minute periods with a ten (10) minute break between periods.

DAY SCHEDULE

Period 1	8:00 a. m. to 8:50 a. m.
Period 2	9:00 a. m. to 9:50 a. m.
Period 3	10:00 a. m. to 10:50 a. m.
Period 4	11:00 a. m. to 11:50 a. m.

NOON HOUR

Period 5	1:00 p. m. to 1:50 p. m.
Period 6	2:00 p. m. to 2:50 p. m.
Period 7	3:00 p. m. to 3:50 p. m.
Period 8	4:00 p. m. to 4:50 p. m.

EVENING SCHEDULE

Period 9	7:00 p. m. to 7:50 p. m.
Period 10	8:00 p. m. to 8:50 p. m.

Grading System

The institute uses the following grade and grade point system:

A—Superior	4 Points
B—Above Average	3 Points
C—Average	2 Points
D—Below Average	1 Point
F—Failure	None

A grade of "I" (Incomplete) may be given a student who has not completed the work in a course. The student receiving the "I" grade may complete the course by special arrangement with the instructor within certain time limitations. If the student fails to make the necessary arrangements or fails to make up work within the allotted time period, the grade for the course automatically becomes a failure (F).

During the first four (4) weeks of a regular semester or the first two (2) weeks of a summer session, a student may withdraw from a course without grade penalty. After the start of the fifth (5) week during the regular semester or the third (3) week in the summer session, withdrawal from a course will automatically cause a failure (F) to be entered on the student's permanent record.

The grade point average for each student is computed by dividing the total number of grade points earned at Schilling Institute by the total number of semester credit hours in which a grade has been recorded.

Semester Credit Hours

A "Semester Credit Hour" is based on one (1) hour of recitation per week for a semester of seventeen (17) weeks. In general, a recitation course for which three (3) semester hours of credit is earned will meet for one (1) hour three (3) times a week. The time a student must spend outside the classroom in preparation will vary with the student, however, a student should normally allow at least two (2) hours of preparation for each one (1) hour of recitation. Laboratory courses, on the average, require the student to spend three (3) hours in the laboratory for each semester credit hour earned. Generally, a laboratory course will require little outside preparation.

Course Load

Students carrying twelve (12) or more semester credit hours are classified as full-time students. Normal loads for full-time students are considered to be fifteen (15) semester credit hours. Stu-

dents who desire to register for more than eighteen (18) semester credit hours must obtain the permission of the Director of Academic Affairs in advance of the registration period. Students attending Schilling Institute for the first semester will not be permitted to carry an overload. A student with a relatively poor scholastic record or a student who has part-time employment may find it to his advantage to carry a lighter semester hour load.

President's Honor Roll

The President's Honor Roll includes those students carrying at least sixteen (16) credit hours who make a grade point average of 3.0, with no grade below "C." The Honor Roll is published at the close of each regular semester. A graduating student who has earned a grade point average of 3.0 at Schilling Institute will be granted his Associate Degree "With Honors."

Academic Probation

Students are required to earn at least a 1.8 grade point average each regular semester and summer session. Failure to earn a 1.8 grade point average automatically puts the student on probation. The student on probation who fails to satisfy the minimum grade point average requirement in the semester or summer session following probation will automatically be on academic dismissal and will not be eligible to enroll again except with special permission and under conditions set by the Probation Committee. A student on probation may be dropped from the Institute by the Committee at any time for failure to attend classes regularly or for failure to make satisfactory progress in his studies.

Repetition of Courses

Only courses in which "D" or "F" have been earned may be repeated for the purpose of raising the grade. When re-enrollment is allowed it will cancel the grade and the credit earned in the early enrollment. However, both grades will be shown on the student's record. The grade received as a result of repeating the course will be used in computing the grade point average.

Credit by Transfer

Any student who is accepted for admission and who has completed courses of college level should submit complete transcripts as a part of the Application for Admission. If records indicate an

acceptable level of achievement in courses corresponding to those in the Schilling Institute curriculum, transfer credits may be granted. A student who has acquired extensive knowledge of a subject through military, industrial or other experience without a college-level course, may be given validation credit for corresponding courses in the Institute curriculum. The student may be required to take an examination to determine if he qualifies for advanced credit at Schilling Institute.

Examinations

Final examinations are considered a part of each course and are scheduled during the closing week of each semester and at the end of the summer session. All students are required to take the examinations. Only in the case of extreme emergency will a student be permitted to deviate from the official examination schedule. Deviations from the examination schedule must receive special permission from the Director of Academic Affairs.

Class Attendance

Regular and punctual class attendance is important to a high standard of work. The student is expected to recognize the importance of regular class attendance. Each instructor makes his own regulations regarding tardiness and attendance in his classes. It is the responsibility of the student to know, and to comply with, each instructor's regulations. It is also the responsibility of the student to make up the work that was missed due to absence.

Library Services

A Technical Reference Library is located near the dormitory complex for the convenience of the institute student body. Reference materials relating to each specific technology are indexed and readily available for use by the student either in the library, or library material can be checked out to use in the student's living quarters. Students may also take advantage of reference materials available through the City of Salina Public Library.

Community Activities

Salina and the surrounding community offers cultural opportunities of a wide variety, including the Community Theater, Civic Music Series, Marymount Concert Series, Municipal Concert

Band, Kansas Wesleyan Concert Series, and the Salina Civic Music Association Concert Series. Lindsborg's annual "Messiah" is nationally known.

Salina parks provide wooded and landscaped quiet areas, picnic grounds and recreational facilities so essential to a complete community. Indian Rock Park offers a wide view of Salina from the top of the hill. Two fine 18-hole grass green golf courses, one 9-hole sand green golf course, 5 swimming pools, over 20 baseball fields, 4 football fields, 3 theaters and two drive-in theaters are available.

Spectator sports programs ranging from college level to youngster baseball leagues, including football, basketball, baseball, tennis and track events are available throughout the year.

There are over 60 churches in Salina representing nearly all denominations of the Christian faith. Jewish faiths are also represented.

Conduct

Students entering the Institute are considered to be mature individuals who are responsible for their own behavior. High standards of personal, ethical, and moral conduct are expected of all students, on campus and elsewhere. The capacity for sound planning and a desire to establish good study and work habits are characteristic of a successful student.

Students are expected to use the Institute facilities with consideration, and to conduct themselves with decorum. Students who refuse to conform to accepted standards of conduct will be dismissed from the institute.

Schilling Institute Curricula

Schilling Institute is currently authorized to grant the Associate of Arts Degree in the following five (5) technologies:

Aeronautical Technology.

Civil Technology.

Computer Technology.

Detail and Design Technology.

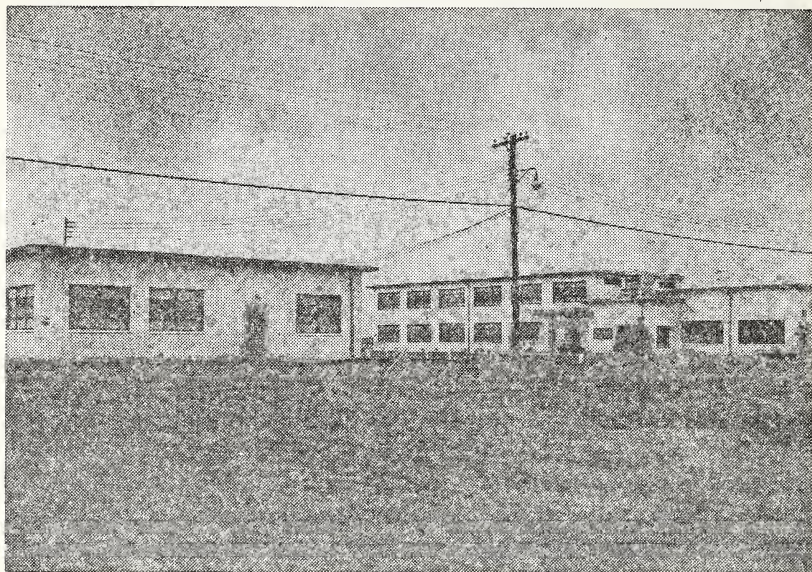
Electronic Technology.

Other programs of study are being considered and may be added to the curricula of the Institute in the near future.

Emphasis is centered upon instruction in the student's chosen area of specialization; however, enrollment in a basic core of gen-

eral education, mathematics and physical science courses are required of each student attending Schilling Institute.

The detailed curricula outline for each technology and the brief course descriptions presented on the following pages are designed to provide general information on the programs of study offered at Schilling Institute.



CLASSROOM AND LABORATORY COMPLEX

Description of Courses

Technical Related Courses

SM-11. Technical Mathematics I. Five credit hours of recitation. The fundamentals of algebra and trigonometry as taught at the college level are modified to emphasize application and de-emphasize theoretical development. This course is specifically designed for technology students.

SM-21. Technical Mathematics II. Four credit hours of recitation—(prerequisite SM-11). A study of functions and their properties including two and three dimensional functions. Definition and applications will include the following: Series, limits, and differential, and the derivative, the definite and indefinite integral, and the processes of applying the various concepts to technical problems. This course is specifically designed for technology students.

SM-31. Technical Mathematics III. Two credit hours of recitation—(prerequisite SM-21). A review of some of the more common differential equations found in technical problems. Solution and application of the linear homogeneous differential equation is emphasized. This course is specifically designed for technology students.

SM-32. Technical Mathematics IV. Two credit hours of recitation—(prerequisite SM-21). A study of numerical methods of analyzing complex equations and mathematical forms. Such course is designed to primarily aid the computer programmer in adapting complex problems to digital computer form.

SP-11. Applied Chemistry. Three credit hours of recitation. A study of the arrangement of matter, the atomic structure, the periodic table and the energy balances relating the inter-action of elements. Some physical chemistry concepts are included, an example being ionic effect in corrosion of materials.

SP-22. Technical Physics. Three credit hours of recitation and one credit hour of laboratory—(prerequisite SM-21 or concurrent). A broad study of the physical forces of nature and the resultant effect on masses. Major objectives include classical mechanics, electricity, magnetism, light and sound.

R-11. Industrial Economics. Three credit hours of recitation. A review of economic trends, depreciation factors, labor costs, operational costs, depreciation vs. maintenance, optimization analysis, estimating, financing, economic trends and other factors of vital need to technical operations.

R-12. Industrial Relations. Three credit hours of recitation. Analysis of the relationship of technical growth and industrial development to the action and coordination of various organizations including professional societies, technical societies, industrial organizations, fraternal and social societies, cooperatives, labor relations groups and political orders. The cooperation and lack of co-operation of such activities and the national trends in technical and industrial relations is the basis of study most vital to the technician.

R-13. Elementary Logic. Three credit hours of recitation. A study of the scientific laws of deduction and related analysis of philosophical reasoning. The basic rules of reason are explored as fundamental concepts and are then applied to mathematical proofs and computer language programs.

RC-05. Perceptual Development. (No credit) (first semester course taken by students requiring perceptual improvement as indicated by examination). This course is designed to identify and attempt to eliminate faulty reading habits that have been ingrained in the student, some since early childhood. Two objectives that will be identified with this course are: (1) improvement in the comprehension and retention level of material read, and (2) improvement in the rate of reading.

RC-15. Technical Communications I. Three credit hours of recitation. A review of the mechanics of technical writing. A study of types of technical

writing, documents, reports forms and other instruments of communication pertinent to the occupation of the technician. Use of the word, sentence and paragraph with emphasis on technical format. Vocabulary building as necessary and other related topics will be included.

RC-16. Technical Communications III. Two credit hours of recitation. A review of oral forms of communicating. Presenting technical papers, giving oral instruction, oral reports and related topics necessary to develop proficiency in the oral presentation of technical material.

RC-25. Technical Communications II. Two credit hours of recitation and one credit hour of laboratory—(prerequisite RC-15). An extension of RC-15 to include advanced study of methods of collection, organization and identification of data, selection of vital data to include in technical reports and the exercise of preparing clear, concise reports.

G-01. Introduction to Technology. One credit hour of laboratory. Seminars, field trips, and library assignments designed to project the student into the world of the technician and to give the student first hand knowledge of the current need for technicians in industry.

Aeronautical Technology Courses

TA-11. Aircraft Welding Laboratory. One credit hour of laboratory. Theory and skill in aircraft welding processes. Exercises in both electrical and gas welding processes as applied to ferrous and nonferrous materials. Inert gas, atomic hydrogen, and resistance welding processes are to be studied.

TA-13. Aircraft Science. Two credit hours of laboratory. A survey of aircraft nomenclature, theory of flight, aerodynamic considerations of rigging and assembly, inspection, installation, and adjustment of flight control systems.

TA-15. Aircraft Standards, Weight and Balance Procedures. One credit hour of recitation and one credit hour of laboratory. A survey of the organization of the Federal Aviation Agency and the Civil Aeronautics Board. Emphasis will be placed on the regulations, standards and specifications of each of these organizations. A detailed study of weight and balance procedures will be conducted in the classroom and in the laboratory.

TA-17. Aircraft Coverings (Fabric and Dope). One credit hour of recitation and two credit hours of laboratory. A course designed to acquaint the student with the various fabric coverings used on today's aircraft and the methods used in application of finishes to aircraft surfaces.

TA-21. Power Plant Systems. Two credit hours of recitation and one credit hour of laboratory—(prerequisite SP-22). A study of internal combustion engines of the type used in small and intermediate class aircraft. Includes studies of the principles of operation of radial, inline, and opposed reciprocating engines as well as a study of gas turbine engines.

TA-30. Aircraft Power Plant Ignition Systems. One credit hour of recitation and one credit hour of laboratory—(prerequisite TEN-22A). A study of battery, high and low tension ignition systems for today's aircraft. Emphasis will be placed on trouble shooting, repair and timing of aircraft ignition systems.

TA-32. Aircraft Materials. Two credit hours of recitation and two credit hours of laboratory—(prerequisites: SP-11, SP-22). A study of materials commonly used in aircraft including woods, metals and alloys with details of the properties of each. Recitation and laboratory skills in woodwork and sheet metal working are stressed.

TA-33. Navigation Aids and Communications System. One credit hour of recitation and two credit hours of laboratory—(prerequisite TEN-22A). A survey study of the aids to navigation and communications used in light and intermediate class aircraft. Field service and trouble shooting of the various types of equipment will be stressed.

***TA-35A. Aeronautical Technology Laboratory.** Five credit hours of laboratory—(prerequisites: TA-11, TA-13, TA-21, TA-23, TA-30, TA-32). Laboratory classes designed to acquaint the future mechanic with work routine, aircraft systems, and inspection methods.

***TA-35B. Aeronautical Technology Laboratory.** Five credit hours of laboratory—(prerequisites: TA-11, TA-13, TA-21, TA-23, TA-30, TA-32). Laboratory classes designed to acquaint the future mechanic with work routine, power plant systems and inspection methods.

TA-36. Aerodynamic Principles. Two credit hours of recitation and one credit hour of laboratory—(prerequisites: TC-33, TA-32). Reaction forces on surfaces of a given geometry moving in a fluid medium. Consideration is given to classical mechanical reactions, thermodynamic effects, and the variability of forces by changing the attitude of these control surfaces.

TA-37. Aircraft Propellers and Control Systems. Two credit hours of laboratory. A study of the use, maintenance, and inspection of propellers and their related control systems.

* Permission will not be granted for enrollment in TA-35A and TA-35B simultaneously.

Civil Technology Courses

TC-16. Operation, Maintenance and Utilization of Construction Equipment. One credit hour of recitation and one credit hour of laboratory—(prerequisite R-11 or concurrent). An introduction to a variety of labor-saving devices used by the construction industry. A study of operational cost, maintenance requirements, and efficient utilization of such equipment. A study of the economic factors involving the use of such equipment is a primary objective of the course.

TC-31. Surveying. One credit hour of recitation and two credit hours of laboratory—(prerequisites: SM-11, TD-12). Theory and practice in methods currently used to obtain land survey information and to provide reference points for various types of layout work. An objective analysis of the need of survey information will be a principal part of the course in addition to developing a fundamental knowledge of various types of survey instruments including mechanical transits and theodolites, electronic point location equipment, and aerial photography methods.

TC-32. Photogrammetry Methods. One credit hour of laboratory—(prerequisite TC-31 or concurrent). Theory and skill in reducing aerial photographic information to conformal topographic maps.

TC-33. Mechanics I. Three credit hours of recitation—(prerequisite SM-21). A study of the force (system) trusses, frames and structures, static equilibrium, friction and properties of geometric shapes.

TC-36. Electrical Mechanical Systems. Three credit hours of recitation—(prerequisite TEN-22A). Codes and procedures relating to the installation of electrical systems, plumbing systems, heating and air conditioning systems, and other related mechanical systems in buildings and structures.

TC-37. Structural Material Application. Two credit hours of recitation and two credit hours of laboratory—(prerequisites: SP-11, SP-22, SM-21). Recitation and laboratory exercises in the study of the application of various types of structural materials including wood, concrete, steel and non-ferrous alloys. Emphasis is placed both on the economics and the feasibility of using certain structural materials.

TC-41. Mechanics II. Three credit hours of recitation—(prerequisite TC-33). Topics on fatigue, stress concentration and failure progression, in addition to a study of stresses and deformations caused by applied forces on given material configurations will be studied.

TC-42. Soils and Foundations. Three credit hours of recitation and two credit hours of laboratory—(prerequisites: SP-11, TC-31, TC-41 or Concurrent). Physical characteristics of compacted and uncompacted soils, soil bearing qualities for foundation, insight into the design for footings, walls, piers and columns, and pilings used in foundation structures.

TC-51. Layout Laboratory. Two credit hours of laboratory—(prerequisites: TC-31, TD-42). Actual layout experience from a given set of instructions. Exercises will include, but will not be limited to the following: building plan layout, form layout, point and line locations, and street and highway layout.

Computer Technology Courses

TCP-11. Computer Systems I. Two credit hours of recitation and one credit hour of laboratory. Three hours recitation and laboratory credit designed to provide a study of various computer systems, the necessity of logic, the likenesses and differences of systems and the need for and evaluation of supporting equipment to complete computer systems. Emphasis is placed on scientific and business systems.

TCP-21. Computer Programming I. Two credit hours of laboratory—(prerequisite TCP-11). Two hours laboratory credit designed to provide guidance and exercise in basic languages designed for the various computers with emphasis placed on the system or systems which will be used in the laboratory.

TCP-31. Computer Operations Lab I. Two credit hours of recitation and three credit hours of laboratory—(prerequisite TCP-21). Five hours recitation and laboratory credit designed to provide extensive exercises in program processing, canned program analysis, and the operation of the computer systems which are available.

TCP-32. Computer Controls. Two credit hours of laboratory—(prerequisite TCP-21). Two hours recitation and laboratory credit arranged to provide an organized study of the control systems used on various computers and complimentary equipment. This study includes board wiring, console studies, input-output methods, and other mechanical, electrical and electronic means of controlling the operation of various pieces of computer-associated equipment.

TCP-33. Computer Programming II. One credit hour of recitation and two credit hours of laboratory—(prerequisite TCP-21). Three hours recitation and laboratory credit offering advanced and varied methods of preparing computer programs for a variety of scientific and business problems.

TCP-41. Computer Operations Lab II. Two credit hours of recitation and three credit hours of laboratory—(prerequisite TCP-31). Five hours recitation and laboratory credit which is advanced and a continuation of TCP-31.

TCP-16. Plant Layout. One credit hour of recitation and one credit hour of laboratory. Two hours recitation and laboratory credit designed to provide some human engineering knowledge as relates to the physical arrangement of computer centers, the arrangement and classification of card libraries, and general conditions that would influence the suitability of the equipment arrangements.

TCP-42. Scientific Programs. One credit hour of recitation and two credit hours of laboratory—(prerequisites: TCP-32 and TCP-33). Three hours recitation credit designed to identify the specific requirements of scientific classification and processing programs. This would be a finishing course in programming designed for the solution of physical problems of large magnitude.

TCP-43. Business Systems. One credit hour of recitation and two credit hours of laboratory—(prerequisites: TCP-32 and TCP-33). Three hours recitation credit designed to identify the specific requirements of business appli-

cations of computer-related equipment. This would be a finishing course in programming designed for the application of business and accounting methods.

TCP-44. C. P. M. and P. E. R. T. Two credit hours of recitation and one credit hour of laboratory—(prerequisites: R-11, TCP-32, TCP-33, TCP-31). Three hours recitation and laboratory credit designed to instill in the student the knowledge and skills necessary to use the Critical Path Method (CPM) and the Project Evaluation and Review Techniques (PERT) that are becoming common in all phases of technology.

Detail and Design Technology Courses

TD-11. Contracts and Specifications. Two credit hours of recitation. A survey course of specifications pertinent to the field of the technician. The need for and meaning of specifications and technical writing and the legal significance of such. The association between specifications and contracts.

TD-12. Graphical Communications I. Three credit hours of recitation. An introductory course to drafting, use of equipment, drawing techniques, discipline in orthographic perception, drawing terminology, standards and symbols, and exercises in single parts drawings, as well as assembly drawings.

TD-13. Welding Laboratory. One credit hour of laboratory. Studies and exercises in welding techniques with emphasis on ferrous material. Both electric and gas welding principles are to be employed. A study of inspection procedures includes knowledge of A. W. S. Codes.

TD-14. Industrial Safety. One credit hour of laboratory. A survey of safety rules and practices, equipment used to insure the safety of workmen and a review of inspection procedures for determining hazardous conditions.

TD-22. Graphical Communications II. Two credit hours of laboratory—(prerequisite TD-12). An advanced course in drawing principles and methods with emphasis on machine drawings. A secondary objective of the course is a study of processes for reproducing drawings.

TD-23. Fabrication Methods. Two credit hours of laboratory—(prerequisite TD-13). A laboratory study of some of the more common processes used for converting raw materials into finished geometrical shapes. Included would be various casting and machining processes.

TD-32. Graphical Communications III. Two credit hours of laboratory—(prerequisites: TD-22, TD-23 or concurrent). A terminal course in drafting procedures to include exercises in converting notes and sketches into finished detailed drawings. Types of drawings are to be inter-disciplinary.

TD-36. Application of Physical Materials. Two credit hours of recitation and one credit hour of laboratory—(prerequisites: SP-11, SP-22). A survey of many physical materials and their properties, the adaptability of these materials to certain job applications, and methods of analyzing the economy of materials application.

TD-37. Applied Energy Conversion. Three credit hours of recitation—(prerequisites: SP-22, SM-21). A study of work and energy and their inter-relationship, energy sources and sinks, and a study of processes for storing or converting energy.

TD-42. Structural Plans. Three credit hours of laboratory—(prerequisites: TD-12, TC-31). A terminal course for a civil technology major. Preparation and interpretation of completed detailed structural plans. A variety of exercises with complex plans.

TD-43. Technical Plans. Two credit hours of laboratory—(prerequisite TD-32, terminal semester only). A design course employing the imagination of

the student coupled with the technical background courses to provide a workable set of plans for a useful device to satisfy the requirements of an assigned objective. A variety of exercises to fulfill specific objectives.

TD-46. Applied Kinematics and Kinetics. Two credit hours of recitation—(prerequisite SM-31). Definitions of motion, rates of changes of motion of a particle, relative motion concepts using both fixed and variable frames of reference, and a classical mechanics concept of force motion relationship of a particle in space. A study of Newton's law of motion.

TD-47. Environmental Systems Analysis. Two credit hours of recitation—(prerequisite TD-37). A study of environmental factors to include temperature, humidity, lighting and acoustics, and other related factors. Temperature zones, and transferability are topics of primary interest in this course.

TD-56. Advanced Applied Kinematics. Two credit hours of recitation—(prerequisite TD-46). An advanced study of motion and relative motion as applied to linkages, geartrains, belt and pulley systems, and other dynamic systems.

TD-57. Vibrating Systems. Two credit hours of recitation—(prerequisite TD-46). A study of the principles of vibrating systems, including an analysis of the simple harmonic system and the vibrating beam. The forced damped system analysis is a major objective of the course.

Electronic Technology Courses

TEN-11. Lab Equipment and Procedures. Two credit hours of laboratory. The use of basic laboratory tools and equipment, proper procedures for making simple repairs on electronic equipment, and a study of safe practices for making electrical measurements.

TEN-22. Basic Electricity and Electronics. Two credit hours of recitation and one credit hour of laboratory—(prerequisites: SM-11, SP-22 or concurrent). A concept of electrical flow and types of circuits. A detailed study of alternating and direct current measurement parameters coupled with a study of basic electronics is also included.

TEN-22A. Basic Electricity and Electronics. Two credit hours of recitation and one credit hour of laboratory—(prerequisites: SM-11, SP-22 or concurrent). A concept of electrical flow and types of circuits with emphasis placed on aircraft starting, generating, and regulating systems. A detailed study of alternating and direct current measurement parameters coupled with a study of basic electronics is also included.

TEN-31. Circuit Analysis. Two credit hours of recitation and two credit hours of laboratory—(prerequisites: TEN-11, TEN-22A). A study of simple electrical and electronic circuit and exercises in tracing circuit components to determine their function in the complex of the total system.

TEN-32. Wave Analysis. Two credit hours of recitation—(prerequisites: SP-22, SM-31). A study of the electromagnetic spectrum and the pressure wave spectrum, energy transmission via electromagnetic wave forms, the significance of carrier frequencies, distortion patterns and their sources, and the function of harmonics.

TEN-41. Applied Electronics I. Three credit hours of recitation and two credit hours of laboratory—(prerequisite TEN-31). The fundamental study of, and laboratory exercises in electronic circuits found in source equipment, gain equipment, display and record equipment, and a variety of transducers. Simple, functional circuits are studied extensively in this course.

TEN-42. Dynamic Measurements. Two credit hours of recitation and two credit hours of laboratory—(prerequisites TEN-41 or concurrent). Study and exercises in selecting proper equipment and making scientific measurements in electrical and electronic system, as well as acoustical systems. Linear and

logarithmic systems are used. A detailed study of error analysis is included. Analogies of systems is explored as a basis of electronic measurements.

TEN-51. Applied Electronics II. Three credit hours of recitation and two credit hours of laboratory—(prerequisite TEN-41). An extension of TEN-41 to include knowledge and experience of complex circuits consisting of multiple function component systems. The concept of multiple degrees of freedom is developed.

TEN-52. Microwave Transmission. Two credit hours of recitation and one credit hour of laboratory—(prerequisite TEN-41). A review of difficulties and applications of the short electromagnetic wave used for carrier frequencies. A study of equipment necessary for such application.

TEN-53. Solid State Applications. Two credit hours of recitation and one credit hours of laboratory—(prerequisite TEN-51 or concurrent). The behavior of semiconductors specifically the transistor, the diode, and the piezo-electric crystals. The application of the solid state components and their behavior under certain environmental conditions will be studied extensively.

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