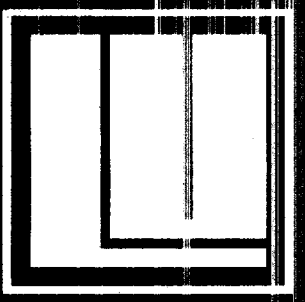
BULLETIN OF

LAMAR UNIVERSITY



School of Technical Arts

1972-73

BULLETIN OF
LAMAR UNIVERSITY

BEAUMONT, TEXAS

VOL. XXII **MARCH, 1972** **NO. 8**

Second class mail privileges authorized at Beaumont, Texas. Published by Lamar University semi-monthly in February and May; monthly except in June, July, and August.

EIGHTEENTH ANNUAL CATALOG ISSUE

With Announcements for 1972-73

for the

School of Technical Arts

The courses, tuition and fees, and all other conditions and policies set forth in this catalog issue shall be subject to change without notification.

CALENDARS FOR 1972 AND 1973

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LAMAR UNIVERSITY

Fall Semester for 1972

Aug. 29	Tuesday		Meeting for new faculty. General faculty meetings. Dormitories open.
30	Wednesday		Faculty Convocation Dining halls open. Registration of students who have completed entrance procedures.
31-Sept. 1	Thurs.-Fri.		Continued Registration
Registration after this date limited to available classes.			Late registration (penalty fee charged). Payment of fees is part of registration.
Sept. 4	Monday	8:00 a.m.	Classes begin.
6	Wednesday		Last date for registration or for adding courses.
19	Tuesday		Twelfth class day.
20-Nov. 22			Period of application for December graduation.
Oct. 23-26	Mon.-Thurs		Mid-semester week.
27-30	Fri.-Mon.		Mid-semester recess of class meetings.
31	Tuesday		Mid-semester grades due in office of Admissions and Records.
Nov. 10	Friday		Last date for dropping courses or for withdrawing without penalty.
13	Monday		Open counseling period.
20	Monday		Last date for approval for December graduation.
22	Wednesday		Dining halls close. Dormitories close.
		10:00 p.m.	Thanksgiving holidays begin.
26	Sunday	12:00 noon	Dormitories open.
27	Monday		Dining halls open.
		8:00 a.m.	Classes resume.
Dec. 11-22			Examinations as announced.
15	Friday		Last date for dropping courses or for withdrawing. Final date for submitting semester grades for graduating seniors to office of Admissions and Records.
16	Saturday		Commencement exercises.
22	Friday		Last class day.
27	Wednesday		Final date for submitting semester grades other than for graduating seniors to office of Admissions and Records.

Spring Semester for 1973

Jan. 9	Tuesday		General faculty meeting. Dormitories open.
10	Wednesday		Dining halls open. Registration for students who have completed entrance procedures.
11-12	Thurs.-Fri.		Continued registration.
Registration after this date limited to available classes.			Late registration (penalty fee charged). Payment of fees is part of registration.
15	Monday	8:00 a.m.	Classes begin.
17	Wednesday		Last date for registration or for adding courses.
30	Tuesday		Twelfth class day.
31-April 13			Period of application for May graduation.
March 5-9	Mon.-Fri.		Mid-semester week.
13	Tuesday		Mid-semester grades due in office of Admissions and Records.
23	Friday		Last date for dropping courses or for withdrawing without penalty.
26	Monday		Open counseling period.
April 13	Friday		Dining halls close. Dormitories close.
		10:00 p.m.	Spring holidays begin.
22	Sunday	12:00 noon	Dormitories open.
23	Monday		Dining halls open.
		8:00 a.m.	Classes resume.
May 1-June 22			Period of application for August graduation.
7-18			Examinations as announced.
11	Friday		Last date for dropping courses or for withdrawing. Final date for submitting semester grades for graduating seniors to office of Admissions and Records.
12	Saturday		Commencement exercises.
18	Friday		Last class day.
21	Monday		Final date for submitting semester grades other than for graduating seniors to office of Admissions and Records.

First Term **Summer Session, 1973**

June 3	Sunday		Limited operation of dormitories.
4	Monday		Dining halls open. Registration.
Registration after this date limited to available classes.			Late registration (penalty fee charged). Payment of fees is part of registration.
5	Tuesday	8:00 a.m.	Classes begin.
6	Wednesday		Last date for registration or for adding courses.
8	Friday		Fourth class day.
25	Monday		Last day for approval for August graduation. Last date for dropping courses or withdrawing without penalty.
July 4	Wednesday		Independence Day holiday.
9	Monday		Last date for dropping courses or for withdrawing.
10-11	Tues.-Wed.		Examinations as announced.
11	Wednesday		Last class day.
14	Saturday		Term grades due in office of Admissions and Records.

Second Term

July 12	Thursday		Registration.
Registration after this date limited to available classes.			Late registration (penalty fee charged). Payment of fees is part of registration.
13	Friday		First class day.
16	Monday		Last date to register or to add courses.
18	Wednesday		Fourth class day.
Aug. 2	Wednesday		Last date for dropping courses or for withdrawing without penalty.
13	Monday		Last date for dropping courses or for withdrawing.
15-17	Wed.-Fri.		Examinations as announced.
17	Friday		Last class day. Final date for submitting semester grades of graduating seniors to office of Admissions and Records.
18	Saturday		Commencement exercises.
21	Tuesday		Final date for submitting semester grades other than for graduating seniors to office of Admissions and Records.

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DIRECTORY FOR CORRESPONDENCE
SCHOOL OF TECHNICAL ARTS

Information concerning the School of Technical Arts may be obtained by calling the Dean's office, 838-8321. All mail should be addressed to Box 10043, Lamar University Station, Beaumont, Texas 77710.

Dean ..... Kenneth E. Shipper
Assistant Dean ..... Gus A. Carlsen
Vocational Counselor ..... Garland Lovelace
Extended Day Coordinator ..... Norman Lowrey
Health Services Department ..... Dolores Jones, Head
Industrial Department ..... M. Paul Roy, Head
Related Arts Department ..... Beryl R. McKinnerney, Head
Technical Department ..... Robert J. Lawrence, Head
Law Enforcement Training ..... Edward L. Parker, Coordinator
Vocational Nursing ..... Dolores Jones, Director

The following persons or agencies are available to serve students enrolled in the School of Technical Arts.

President ..... Dr. Frank A. Thomas, Jr., Box 10001
Academic Program ..... Andrew J. Johnson, Vice-President, Box 10002
Extended Services ..... Thomas T. Salter, Vice-President, Box 10051
Financial Affairs ..... H. C. Galloway, Vice-President, Box 10003
Student Affairs ..... David L. Bost, Vice-President, Box 10006
Admissions and Records ..... Norris H. Kelton, Dean, Box 10009
Books/Supplies ..... Pete Plotts, Bookstore Manager, Box 10019
Financial Aids/Awards ..... Jess R. Davis, Director, Box 10042
Testing/Veterans' Affairs ..... Joe B. Thrash, Director, Box 10012
Information/Publications ..... Russell DeVillier, Director, Box 10011
Student Health ..... Mrs. Ola Saunders, R.N., Director, Box 10015
University Police ..... Eugene W. Carpenter, Director, Box 10013
Student Housing ..... Tommy D. Paulsel, Director, Box 10041
Library Services ..... R. Blaine Thomas, Director, Box 10021
Continuing Education ..... Joseph D. Reho, Director, Box 10008
L.U. at Orange County ..... J.B. Welch, Director, 410 Front St., Orange, Texas 77630

BOARD OF REGENTS

Otho Plummer, Chairman ..... Beaumont, Texas

Cecil Beeson, Vice-Chairman ..... Orange, Texas

A. H. Montagne, Secretary ..... Orangefield, Texas

Bryan Beck, Jr. ..... Beaumont, Texas

Lloyd L. Hayes ..... Port Arthur, Texas

Tom M. Maes, II ..... Beaumont, Texas

W. S. Monroe ..... Port Arthur, Texas

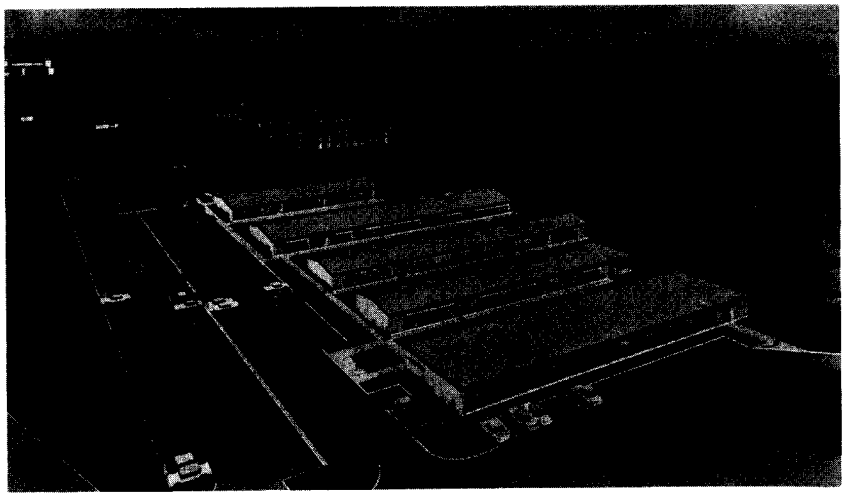
Pat Peyton, Jr. ..... Beaumont, Texas

J. L. Smith ..... San Augustine, Texas

ACCREDITATION

Lamar University is a member of the Association of Texas Colleges and Universities and the Southern Association of Colleges and Schools, American Council on Education, National Commission on Accreditation, Texas Association of Music Schools, American Society of Engineering Education, American Association of University Women, is approved by the Texas Education Agency, and is approved for the Training of Veterans under all classifications.

Several departments have been accredited by professional agencies. In the School of Engineering, the departments of Chemical, Civil, Electrical, Industrial, and Mechanical Engineering are accredited by the Engineers' Council for Professional Development. Other accreditations include the Department of Chemistry, which is accredited by the American Chemical Society; the Department of Music, which is accredited by the National Association of Schools of Music; and the Departments of Elementary and Secondary Education, which are accredited by the National Council for the Accreditation of Teacher Education.



SCHOOL OF TECHNICAL ARTS

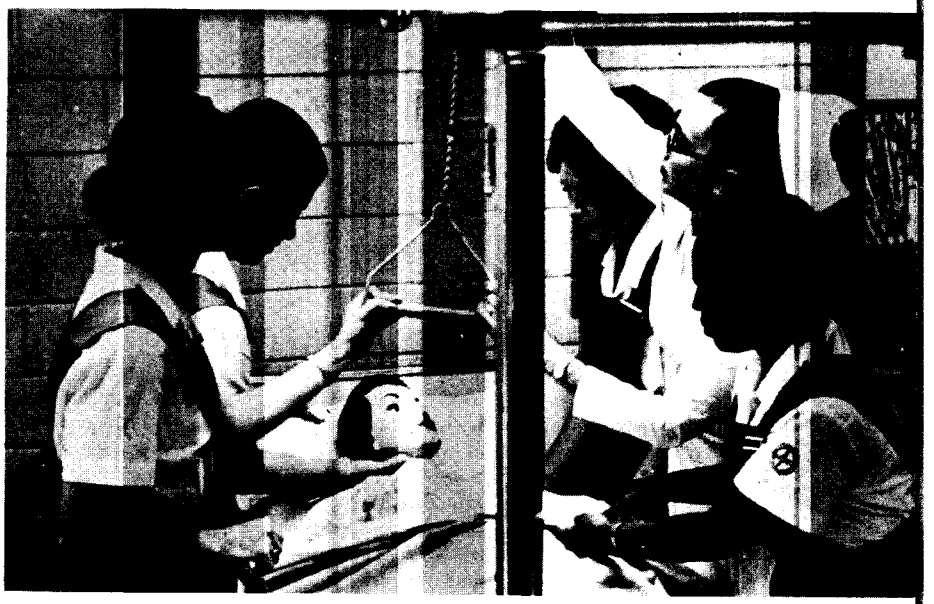
The School of Technical Arts is one of eight schools at Lamar University and has provided technical and industrial education for thousands of Texas men and women. It is housed in a modern plant with five buildings having more than 80,000 square feet of space. Modern facilities are provided for instruction in the following associate degree programs: Business Data Processing, Diesel Mechanics, Dental Hygiene, Drafting Technology, Industrial Electricity and Electronics Technology, Machine Tools, Mid-Management, Police Science, Radiologic Technology, Refrigeration and Air Conditioning Technology, and Welding. A Certificate of Completion is offered in Vocational Nursing. Instruction also is offered in the following Adult Training programs: Industrial Supervision, Law Enforcement Training, Nurse Assistant, Plant Maintenance and Operations, and Real Estate.

Location

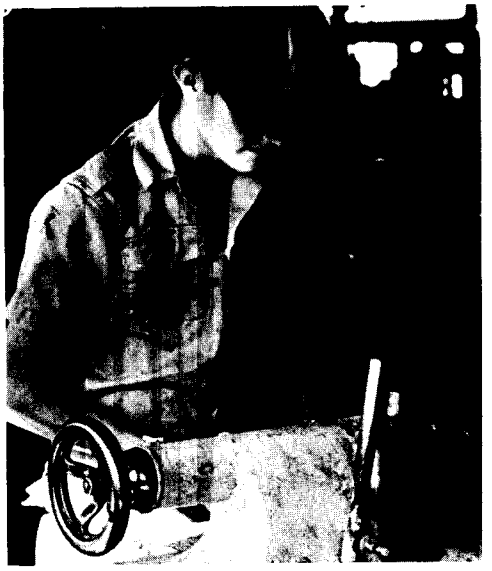
The School of Technical Arts of Lamar University is located in the heart of industrial Southeast Texas at Beaumont. The principal industries in the area are oil refining, shipping, ship building, rubber manufacturing and other related industries. Rice farming and ranching are the chief agricultural pursuits.

The campus is adjacent to the Beaumont-Port Arthur Highway in southeastern Beaumont. With a population of approximately 120,000, Beaumont has modern schools, churches, and shopping districts to serve the thriving industrial community.

In the metropolitan Beaumont area are the cities of Port Arthur, Orange, Vidor, Port Neches, Nederland and Groves, all within 25 miles and forming the heart of the Gulf Coast area with an estimated population of more than 350,000.



The rapid expansion of our national economy has increased many times the number of employment opportunities for those possessing the knowledge and skills of the industrial and technical occupations. The objective of the School of Technical Arts is to offer men and women an effective and economical means for learning one of these occupations in a relatively short period of time.



History

South Park Junior College was established in 1923. The college was organized and controlled by the South Park Independent School District, and classes were conducted in the South Park High School Building. Enrollment increased from about 125 in 1923 to 300 in 1931.

In 1932, the name of the institution was changed to Lamar College. At this time separate facilities were provided, additional equipment was purchased and new policies were instituted. By 1939, enrollment was approximately 640.

In 1940, Lamar Union Junior College District was created, and Lamar College was separated from the South Park Independent School District. Bonds were voted and new facilities were constructed on the site of the present main campus.

A movement to expand Lamar College into a four-year state-supported school culminated in the creation of Lamar State College of Technology on September 1, 1951. Since that time the curriculum has been expanded and liberalized to include many areas of study, and many additional facilities have been provided. Enrollment has increased until there are now more than 10,000 students enrolled.

The college offered graduate work in specified fields beginning in the academic year of 1960-61, extension work became an integral part of the college program in 1964, and a doctor of engineering program was added in 1970.

Following approval by the Texas Legislature, Lamar State College of Technology became Lamar University effective August 23, 1971. This name change provided visible recognition of Lamar's many years of expansion of its educational programs.

Vocational subjects were among the first courses offered by Lamar College and have played an important role in the development of Lamar University. A Division of Vocations was established in 1946 and became the Lamar School of Vocations in 1955. In 1970, the name was changed to the School of Technical Arts. During 1971, the School began awarding Associate of Applied Science degrees in two-year programs. The School still offers Certificates of Completion in programs of less than two years duration.

Government

The government of the university is vested in a board of nine regents appointed by the Governor and approved by the Senate for terms of six years. The direction of academic affairs is delegated by the Board of Regents to the President, administrative officers, and faculty.

Objectives

The basic objective of the School of Technical Arts is to help students equip themselves for effective living and for responsible citizenship in our society by offering educational programs and training which will extend their basic knowledge, encourage their continued development, and give them marketable skills. In working toward this goal, the school encourages students to assume a major share of responsibility for the development of their potentialities and for utilization of their abilities, for their own purposes and for the good of society.

In order to stimulate students to have open minds, emphasis is placed upon the development of creative and scientific thinking for the solution of problems in the social and physical environment of their time. An effort is also made to provide guidance

which will encourage the students to reach mature and responsible decisions, whatever the nature of the problems they may encounter.

The School of Technical Arts recognizes its obligation to make available to the community all the opportunities implicit in its function as a part of Lamar University. In an effort to achieve this goal, the specific objectives of the school are:

1. To provide guidance services that will assist each student in making an appropriate vocational choice.
2. To provide certificate and degree programs designed to prepare students for employment in various fields.
3. To provide education and training which allows the graduate to advance rapidly in his chosen field.
4. To instill in the student the desire to learn which will guide his growth in his profession.
5. To provide in-service training to persons currently employed in southeast Texas.

Building and Grounds

Located on a campus of approximately 200 acres and valued at approximately $40,000,000, the Lamar plant includes many new and functional buildings of modern design. These structures include:

Administration Building, Art Building, Biology Building, Bookstore, Business Building, Chemistry Buildings, Dining Halls A and B, Education Building, Educational Services Center, three Engineering Buildings, Geology Building, Health Center, Home Economics Building, Liberal Arts Building, Library, McDonald Gymnasium, Music-Speech Building, Physics Building, Post Office Building, Science Lecture Auditorium, Student Affairs Building, Setzer Student Center, five School of Technical Arts Buildings, Theatre/Gallery and Women's Health and Physical Education Building.

The Richard W. Setzer Student Center, opened in 1971, represents an investment of $2,800,000, in expansion, renovation, and furnishing of the former Student Union Building. Refurbishing of the Student Affairs Building (formerly Liberal Arts) and Engineering Buildings 1 and 2 has been completed also.

On-campus dormitories include Brooks Hall, Gentry Hall and Gray Hall for women; Campbell Hall, Combs Hall, Morris Hall, Plummer Hall, and Shivers Hall for men. Also, three apartment buildings for upper class students and the married couples are included in the residence hall system.

The President and Director of the Physical Plant have homes on the campus.

A football stadium seating 17,150 and planned eventually to accommodate 38,500; Cardinal baseball field, athletic practice fields, Olympic swimming pool, 14 tennis courts, track and field stadium, and a four-building maintenance complex are also located on campus.

Dining Hall

The university owns and operates two dining halls located on the main campus. Also, dining halls are maintained for residents of Brooks, Gentry, Plummer, and Shivers Halls.

In addition to the snack bars located in the Setzer Student Center, the School of Technical Arts provides facilities where sandwiches, soft drinks, and light lunches are available.

The Library

In support of the continuously expanding university programs, the Lamar Library has developed a strong collection. Approximately 25,000 volumes are added annually to the present 245,000 volumes, and over 3,000 periodicals are received. Library resources are further enriched by some 30,000 state and federal documents and microform materials.

Library hours are 7:30 a.m. to 11 p.m. Monday through Thursday; 7:30 a.m. to 5 p.m. Friday; 8 a.m. to 5 p.m. Saturday; and 2 to 11 p.m. Sunday. Hours between sessions and on holidays are posted.

Bookstore

For the convenience of faculty and students, the university operates its own bookstore where supplies and books, new and used, may be purchased.

Used books which are currently approved may be sold to the bookstore at prices much better than such books would ordinarily bring. Books which must be discontinued for very good reasons are not purchased by the Bookstore except at a salvage price.

The Bookstore reserves the right to require the seller to prove his ownership.

Health Center

The university maintains a Health Center for the use of students during the long term or summer session.

Two types of service are available: (1) out-patient service for those who have minor ailments but who do not require constant supervision, and (2) infirmary service for those who are in need of the continued attention of the university physician or of nursing care.

Scholarships

Lamar University offers a scholarship to the highest ranking graduate of each fully accredited high school of Texas. Each scholarship exempts the holder from payment of $50 tuition per semester. Other scholarships supported by industries, organizations, and individuals are available upon application for Technical Arts students. Further information can be obtained from the Student Financial Aids Office.

Students with Physical Handicaps:

The State Board of Vocational Education through the Vocational Rehabilitation Division, offers assistance on tuition to students who have certain physical disabilities, provided the vocational objective selected by the disabled persons has been approved by a representative of the Division. Application for Vocational Rehabilitation assistance should be made to the nearest rehabilitation office or to the Director of Vocational Rehabilitation, 612 Littlefield Building, Austin, Texas 78711. The Beaumont office is located in 1110 Goodhue Building.

Veterans Education

Lamar holds a contract for educating veterans under the Vocational Rehabilitation Law, known as Public Law Number 16, and is an approved university for veterans

under Public Law Number 346 and Public Law Number 550. The vocational training has been especially prepared for those who wish to establish themselves in business and industry in the Sabine-Neches area.

Veterans who are interested in continuing their education under federal laws providing such training are directed to secure information and aid in planning their university work by consulting the Office of Veterans' Education, Educational Services Building.

Part-time Employment

The university, as well as many local businesses and industries, provides a number of part-time jobs which enable worthy students to earn part or all of their expenses. Applicants should contact the Director of Financial Aids.

Ex-Students Association

An association of former students of Lamar actively promotes the best interests of the university. Membership in this association is open to all ex-students, whether graduates or not. The Executive Secretary maintains an office in the Student Affairs Building.

ADMISSION REQUIREMENTS

How to Apply for Admission

Students entering the School of Technical Arts may enroll under one of the following plans.

Plan I—All courses will be taken in the School of Technical Arts.

Plan II—Courses may be taken in various Schools of the University.

All students applying for admission to the School of Technical Arts must complete the following requirements.

1. File an application for admission. Plan II students submit both Technical Arts and Undergraduate forms. (Technical Arts form attached to back of this catalog; Undergraduate form available from Dean of Admissions and Records office.)
2. Take the College Entrance Examination Board's (CEEB) Scholastic Aptitude Test (SAT) and designate Lamar University to receive the scores. (November, December, January test dates are preferred.) No minimum score on the SAT is required of those students entering under Plan I.
3. Submit the official health data form executed by a physician (health form attached to back of this catalog).
4. Have transcript of high school grades sent directly to the Dean of Admissions and Records, Lamar University.

Where to Apply

All required admission forms should be addressed to the Dean of Admissions and Records, Lamar University, Lamar University Station, Box 10009, Beaumont, Texas 77710.

Requirements for Admission

All students must complete items listed in the preceding outline on "How to Apply for Admission" and also must meet the following requirements:

Plan I—One of these prerequisites must be met for admission under Plan I:

1. Graduation from an accredited high school.
2. Transfer with transcript from an accredited post-secondary vocational-technical school.
3. Individual approval from the Dean of Admissions and Records for persons 18 years of age or older who do not meet either of the two preceding requirements.

Plan II

All of the following prerequisites must be met by students enrolling under Plan II.

1. Graduation from an accredited high school with:
   A. Four (4) units of English (excludes speech, journalism, Business English, etc.)
   B. Two (2) units of mathematics (algebra and geometry).

C. Four (4) units from two of the following groups:
   1. Group I—Two (2) units of social studies.
   2. Group II—Two (2) units of natural science.
   3. Group III—Two (2) units of foreign language.

D. Six (6) units of electives (must not include more than four (4) vocational units).

2. Total verbal and mathematics scores on CEEB aptitude test (SAT) must be 700 or above for Texas residents. Out-of-state students must rank in the upper three-fourths of their graduating class and have a minimum SAT score of 900. This SAT requirement is waived for graduates prior to 1960 if high school preparation includes all units required for admission. Further information may be found in the "Admissions" section of the general university bulletin.

3. Students transferring from another institution must submit official transcripts from each college previously attended. This requirement applies regardless of the length to time in attendance and regardless of whether credit was earned or is desired. Further information concerning transfer students may be found in the "Admissions" section of the general university bulletin.

Adult Training Programs

The following requirements are necessary for admission to Adult Training Programs in which university credit is awarded.

1. A minimum entrance age of 18 years.
2. Employment in trade or industry for which supplementary instruction would increase the skill or knowledge of the worker.
3. A written statement by the student which includes (a.) the name and address of employer, (b.) payroll designation, and (c.) a brief description of the daily duties of employment.
4. File an application for admission to the School of Technical Arts.
5. Have transcript of high school grades sent directly to the Dean of Admissions and Records, Lamar University.
6. Submit the official health data form executed by a physician (health form attached to back of this catalog).
7. The SAT is not required of persons applying for admission to Adult Training Programs.

FEES AND EXPENSES

Payment of Fees

Lamar University reserves the right to change fees in keeping with acts of the Texas Legislature.

A student is not registered until all his fees are paid in full. Payment may be made by check, money order or currency. Checks and money orders, not in excess of total fees should be made payable to Lamar University and will be accepted subject to final payment. Checks and drafts deposited with Federal Reserve banks cannot be handled through regular bank collection channels if received without the magnetic ink (MICR) transit number. The new electronic processing demands such magnetic ink encoding. The University will not accept counter checks or "changed" checks.

These fees have been approved by appropriate acts of the Legislature of the State of Texas.

Fees Summary

Texas Resident Students (Fall or Spring Semester)

Semester Hours	Tuition	S.S. Fee	Bldg. Use Fee	Setzer Center Fee	Total*
1 to 7	$50	$ 8	$13	$10	$ 81
8 to 12	50	22	26	10	108
13	52	22	26	10	110
14	56	22	26	10	114
15	60	22	26	10	118
16	64	22	26	10	122
17	68	22	26	10	126
18	72	22	26	10	130
19	76	22	26	10	134
20	80	22	26	10	138
21	84	22	26	10	142

*Miscellaneous Fees extra

Texas Resident Students (Summer Session-Six Weeks)

Semester Hours	Tuition	S.S. Fee	Bldg. Use Fee	Setzer Center Fee	Total*
1 to 6	$25	$10	$13	$ 5	$ 53
7	28	10	13	5	56
8	32	10	13	5	60
9	36	10	13	5	64
10	40	10	13	5	68
11	44	10	13	5	72
12	48	10	13	5	76

*Miscellaneous Fees extra

Non Resident Students, U.S. Citizens (Fall or Spring Semester)

Semester Hours	Tuition	S.S. Fee	Bldg. Use Fee	Setzer Center Fee	Total*
1	$ 40	$ 8	$13	$10	$ 71
2	80	8	13	10	111
3	120	8	13	10	151
4	160	8	13	10	191
5	200	8	13	10	231
6	240	8	13	10	271
7	280	8	13	10	311
8	320	22	26	10	378
9	360	22	26	10	418
10	400	22	26	10	458
11	440	22	26	10	498
12	480	22	26	10	538
13	520	22	26	10	578
14	560	22	26	10	618
15	600	22	26	10	658
16	640	22	26	10	698
17	680	22	26	10	738
18	720	22	26	10	778
19	760	22	26	10	818
20	800	22	26	10	858
21	840	22	26	10	898

*Miscellaneous Fees extra

Non Resident Students, U.S. Citizens (Summer Session-Six Weeks)

Semester Hours	Tuition	S.S. Fee	Bldg. Use Fee	Setzer Center Fee	Total*
1	$ 40	$10	$13	$5	$ 68
2	80	10	13	5	108
3	120	10	13	5	148
4	160	10	13	5	188
5	200	10	13	5	228
6	240	10	13	5	268
7	280	10	13	5	308
8	320	10	13	5	348
9	360	10	13	5	388
10	400	10	13	5	428
11	440	10	13	5	468
12	480	10	13	5	508

*Miscellaneous Fees extra

Foreign Students (Fall or Spring Semester)

Semester Hours	Tuition	S.S. Fee	Bldg. Use Fee	Setzer Center Fee	Total*
1 to 7	$200	$ 8	$13	$10	$231
8 to 14	200	22	26	10	258
15	210	22	26	10	268
16	224	22	26	10	282
17	238	22	26	10	296
18	252	22	26	10	310
19	266	22	26	10	324
20	280	22	26	10	338
21	294	22	26	10	352

*Miscellaneous Fees extra

Foreign Students (Summer Session-Six Weeks)

Semester Hours	Tuition	S.S. Fee	Bldg. Use Fee	Setzer Center Fee	Total*
1 to 7	$100	$10	$13	$5	$128
8	112	10	13	5	140
9	126	10	13	5	154
10	140	10	13	5	168
11	154	10	13	5	182
12	168	10	13	5	196

*Miscellaneous Fees extra

Non-Resident Students Registering During Spring, 1971

Non-resident students who are U.S. citizens who were enrolled during the 1971 spring semester are allowed to pay the same tuition as they paid in 1971. Out-of-state students should refer to the 1972-3 **General Bulletin** for complete fee information.

Vocational Nursing Students

Students enrolled in the vocational nursing program are charged a maximum tuition fee of $50. All other fees are the same as for other students.

Student Responsibility for Residence Classification

The responsibility of registering under the proper residence classification is that of the student, and if there is any possible question of his right of classification as a resident of Texas, it is his obligation, prior to or at the time of his registration, to raise the question with the Dean of Admissions and Records and have his status officially determined.

Every student who is classified as a resident student who becomes a non-resident at any by virtue of a change of legal residence by his own action or by the person controlling his domicile is required to notify the Dean of Admissions and Records.

Students failing to comply with the residency provisions of the state tuition bill (Art 2645c, V.C.S. as amended 1957) are subject to penalties as set forth in the law and/or appropriate disciplinary action.

Laboratory Fee

For all courses in which the combined credit of lecture and laboratory is from 1 to 3 semester hours, a laboratory fee of $2 is charged for each semester. For such courses in which the credit is 4 semester hours or more, the laboratory fee is $4 per semester.

Parking Fee

Charges for parking on campus are made at the time a student is registered. In each instance, a student's parking fee is honored up to the end of the current fiscal year, which is August 31.

Registration of an automobile in September is $10. The January fee is $6. A student registering for the first Summer Session is charged $4, and for the second Summer Session the fee is $2.

Only one registration is required for one school year.

Returned Check Fees

If a check is returned unpaid, the student is automatically suspended from the university, but may re-enter upon redemption of the check plus payment of the return check fee of $2.

Special Fees

Fees for courses for which special plans must be prepared and for which specialists must be secured as instructors will be set for each such course by the university administration subject to the approval of the president.

Miscellaneous Fees

Certificate of Completion	$4.50
Associate of Applied Science Diploma	4.50
Cap and Gown Rental	7.00
Late Registration	5.00
Re-entry Fee	5.00
Returned Checks	2.00
Transcript Fee	.50
Advanced Standing Examination	(per course) 5.00
Photo Identification	2.00
Swimming Pools (suit & towel)	2.00

Health and Accident Insurance

Additional health and accident coverage providing protection over and beyond that given by the Health Center is available at registration for students carrying nine or more semester hours. The fee is approximately $25. For their protection and welfare this (or similar) insurance is required of all foreign students.

Exemption 1. Scholarships to High School Honor Graduates

The highest ranking student in the graduating class of a fully accredited Texas high school will be entitled to a scholarship valued at $100. This scholarship must be utilized during the long session immediately following graduation.

Exemption 2. Veterans

Citizens of Texas who served in the Armed Forces in World War I, World War II, the Korean Conflict, or the Vietnam War, and were honorably discharged therefrom and who are not eligible for educational benefits provided for veterans of the United States Government, are exempt from tuition and laboratory fees, but not from other fees. To obtain this exemption, the service record, discharge papers, or other necessary papers must be presented at the time of registration.

The above exemption also extends to children of members of the Armed Forces who were killed in action or died while in the service in World II, the Korean Conflict or the Vietnam War.

Summary of Registration Expenses

It is possible to attend Lamar on a very modest sum and yet participate in all important phases of the university program. To assist in planning registration expenses, the following estimate is furnished as a guide:

Texas residents taking a 15 hour course load*:

Tuition	$ 60
Student Services Fee	22
Building Use Fee	26
Setzer Student Center Fee	10
Parking Fee (if desired)	10
Health Insurance (if desired)	25
Books and Incidentals (estimated)	55
	$208
	+ lab fees

*Tuition for Texas residents taking 12 hours or less is $50 per semester. Each additional semester hour is $4 per hour. A full-time student is one who takes 12 or more semester hours of course work.

The tuition fee varies with the semester hours carried so that the total is less or more than this estimate, according to the schedule shown in the section, "Fees Summary."

Refund of Fees

Any student withdrawing officially will receive a refund on tuition, student service, laboratory and private lesson fees according to the following schedule:

Long Session

1. During the first two weeks of the semester, 80 per cent.
2. During the third week of the semester, 60 per cent.
3. During the fourth week of the semester, 40 per cent.
4. During the fifth week of the semester, 20 per cent.

Summer Session

1. During the first week of the semester, 60 per cent.
2. After first week no refund.

No refunds are made when dropping courses.

Application for refund must be made to the Vice-President of Finance after the student has officially withdrawn, but not later than the end of the current semester or summer session.

It takes about 30 days to process these refunds.

Fine and Breakage Loss

All library fines, breakage or loss of equipment charges, or other charges must be paid before a transcript of credit or a permit to re-enter the university will be issued.

The university reserves the right to make a special assessment against any student guilty of inexcusable breakage or loss of instructional equipment or other university property.

Scholastic Aptitude Test

The Scholastic Aptitude Test is administered by CEEB at test centers throughout the United States and in many foreign countries in November, December, January, March, and July. It is recommended that summer and fall applicants take the test no later than the January date. The location of all test centers, test dates, fees, application forms, and general information about the test is given in the CEEB booklet: Bulletin of Information—College Board Admissions Tests. The Bulletin may be obtained without charge from high school counselors, the school's vocational counselor, or by writing directly to the College Entrance Examination Board, Box 1025, Berkeley, California 94701. Secure a booklet EARLY so that a convenient test date and site can be selected.

STUDENT HOUSING

The student housing program at Lamar is designed to supplement the academic program of instruction by providing opportunities for social and intellectual development and recreation in a pleasant living environment.

A professional staff is on hand to work with students in planning and executing residence hall programs and to serve as advisors and counselors to students. University residence halls can economically provide the proper atmosphere for out-of-class activities of an educational nature, and the proper environment for academic preparation and study.

It is realized that the facilities and programs of Lamar's residence halls will not fulfill the desired life-style of some students. For this reason, students who do not feel that the residence hall program meets their personal needs may elect to find living accommodations off-campus.

The adjustment from secondary school to the university frequently is difficult for the first-year student. It is, therefore, recommended that all freshmen who do not live with parents or other relatives, reside on the campus where they will have ready access to assistance with their academic programs through the Library and through contacts with upperclassmen in their major fields, and to counseling from the professional staff.

Policies

The following policies will govern the operation of residence halls in 1972-73.

1. Students may request private rooms, or rooms with one or two roommates. Unfurnished rooms will be available at reduced cost in selected housing units. A student who lives in university housing must participate in the room and board plan designated for the residence hall in which he elects to reside.
2. Residence hall room assignments will be made on a contract lease basis, cancellable by the student at the end of any given semester. If a student removes himself from the housing system prior to the end of the semester, no refund of room rent or deposit will be made and the student will honor his contractural agreement for food service for the balance of the semester. Except for fractional parts of a month, rent refunds will be made to occupants moving from the married student apartments if 15 days notice is given.
3. Under the guidance of the Student Affairs Division, the various residence halls councils, elected by the residents, will have the responsibility for enacting and enforcing rules and regulations governing their respective residence halls.
4. Within certain limitations, rooms may be decorated to suit individual tastes, including the painting of walls in some units. Prior approval of the Assistant Dean of Students for Housing is required.
5. A $50 refundable deposit will be required of all residents, to serve as a guarantee of reservation and to be applied against any damage to university facilities, chargeable to the student. All unclaimed rooms will be declared vacant and deposit forfeited at 6 p.m. on the last day of registration unless the student gives the Student Housing Office written instructions to hold the room for a longer period. The amount of the deposit must total $50 at the start of each semester; i.e., any charges against the deposit must be reimbursed to the deposit fund to bring it up to $50 prior to occupancy for the ensuing semester.

6. Dormitory residents will be responsible for keeping their rooms in good condition. They will be financially responsible for the replacement or repair of any university property entrusted to them which may be damaged, whether such damage is caused by the occupant or a guest.
7. Payment for damages to any area of the dormitory will be required of the individual student responsible for the damages. In the event responsibility for damages to lounges, hallways, stairways, etc. cannot be determined, all residents will share equally in the cost of replacement or repair.
8. Women's housing units normally close at 12 midnight Sunday through Thursday, and at 2 a.m. on Friday and Saturday nights. Parental consent for self-regulated hours, special late permissions, and general overnight and weekend permissions will be honored.
9. Residents of the Lamar Apartments will be allowed to have visitors of the other sex in their apartments during prescribed hours. This plan is available only in the apartments. In addition to married couples, apartment units may be leased by upperclass and graduate students who are 21 years of age, or whose parents sign a consent form. Rules governing the Lamar Apartments will be drafted and enforced by the residence hall council of the Lamar Apartments in cooperation with the Student Affairs staff.
10. The illegal use of drugs, the possession and/or use on campus of alcoholic beverages or marijuana is a violation of university regulations, and violators will be subject to disciplinary action, including removal from the institution, and prosecution through the civil and/or criminal courts.
11. Students whose general behavior warrants disciplinary action may forfeit their privilege of remaining in the university residence halls.
12. The university reserves the right to inspect student rooms and apartments when evidence points to imminent danger to persons or property. Otherwise, routine inspections for maintenance purposes will be made only at announced times.

Housing Rates

Type of Facility	Cost Per Student for Each Semester	
	With Air-Conditioning	Without Air-conditioning
Resident Halls: Fall and Spring Semesters		
Single occupancy	$325.00	$300.00
Double occupancy	220.00	200.00
Triple occupancy	160.00	145.00
Two-room suites:		
2 students per suite (each)	325.00	300.00
3 students per suite (each)	255.00	233.00
Resident Halls: Summer Sessions (each six weeks)		
Single occupancy	108.50	Not available
Double occupancy	73.50	Not available
Triple occupancy		Not available during summer
Suites		Not available during summer

Apartments (with kitchen): Fall and Spring Semesters

Married Student	375.00	350.00
Two students (each)	250.00	Not available

Apartments (with kitchen): Summer Sessions (each six weeks)

Married Student	125.00	116.50
Two students (each)	83.50	Not available

Apartments (without kitchen): Fall and Spring Semesters

One student	375.00	Not available
Two students (each)	220.00	Not available

Apartments without kitchen not available for summer sessions.

All Rates Are Subject to Change Without Notice.

Direct inquiries regarding all housing (accommodations, charges, room reservations, board, etc.) to: Housing Office, Lamar University, P. O. Box 10041, Lamar University Station, Beaumont, Texas 77710.

A reduction of $45 per nine month term and $7.50 per summer session **per room** will be allowed for rooms and apartments rented unfurnished. Unfurnished rooms are available only in Campbell, Combs, Morris, and Gray Halls and the Lamar Apartments.

Information is available from the Student Housing Office for students wishing to pay rent on a monthly basis.

Meal Plans

Board Plans may not be changed during the semester. All meal prices include the current 5% sales tax. All rates are subject to change without notice.

A. **Full Board Plan:** Provides three meals per day except Sunday evening. Meal stickers are not transferable. Lost stickers will be replaced for a fee. Payment may be made in advance for the semester, or the student may elect to follow this payment schedule:

Fall Semester		Spring Semester	
Aug 29 (check in)	$91.88	Jan 9	$45.94
Oct 1	76.98	Feb 1	66.61
Nov 1	64.56	Mar 1	55.13
Dec 1	42.21	Apr 1	64.31
		May 1	43.64
TOTAL FALL	$275.63	TOTAL SPRING	$275.63

B. **Partial Board Plan:** The student contracts to purchase a minimum of four-meal coupon books per semester. Each book contains coupons for 41 meals, priced at $50 (plus current tax) per book, for a total of 164 meals at $200 (plus current tax) per semester. Coupons may be used at any meal, in any dining hall (Plummer and Gentry Halls by invitation only). A book of coupons may be purchased in the Housing Office by commuters or residents of Gray and Morris Halls.

Conditions Governing the Partial Board Plan: Coupons are transferable and may be used to "treat" guests. No refunds will be made for lost books. Coupons must be used in the semester of issue. Unused coupons are not redeemable. Coupons purchased during the fall semester will expire on December 22, 1972; coupons purchased during the spring semester will expire on May 18, 1973. Students residing in Brooks, Shivers, Plummer, or Gentry Halls who choose to pay room in advance for the semester and the partial meal plan by the payment schedule, must purchase coupon books on or before the following dates:

Fall Semester		Spring Semester	
No. 1-Tues Aug 29 (check-in)	$52.50	No. 1-Tues Jan 9 (check-in)	$52.50
No. 2-Mon Sept 18	52.50	No. 2-Mon Feb 12	52.50
No. 3-Mon Oct 23	52.50	No. 3-Mon Mar 12	52.50
No. 4-Mon Nov 20	52.50	No. 4-Mon Apr 9	52.50
TOTAL FALL	$210.00*	TOTAL SPRING	$210.00*

C. **Summer Board Plan:** Provides three meals per day, five days per week, Monday thru Friday. Meal stickers are not transferable. Saturday and Sunday meal service is available in the Setzer Student Center on a cash basis.

Cost per each Summer Session.....$75.60*

All rates are subject to change without notice. For additional information and application forms write: Student Housing Office, Lamar University Station, Box 10041, Beaumont, Texas 77710.

RESERVATIONS AND ASSIGNMENTS

Reservations

To reserve a room in the residence halls or an apartment, direct a request to the Housing Office, Lamar University, P.O. Box 10041, Lamar University Station, Beaumont, Texas 77710. **A check or money order for $50 must accompany the reservation request. Reservations may be cancelled with full refund until three weeks prior to the first day of classes. No refunds will be issued on cancellations received after this date.**

All unclaimed rooms will be declared vacant and the deposit forfeited at 6 p.m. on the last day of registration unless the student gives the Student Housing Office written instructions to hold the room for a longer period. Residents will be refunded deposits, less any breakage or cleaning charges, at the end of a semester on proper withdrawal from the housing unit. The deposit will not be refunded if the student moves from the housing system prior to the end of a semester.

Assignments

Permanent assignments cannot be made until the student reports for check-in. The University reserves the right to assign students to specific apartments, dormitories, and rooms. Students may request certain apartments, dormitories, and rooms, and all possible consideration will be given each request. Students already living in university-owned housing units have the first choice of rooms and apartments the following semester.

*Includes current tax.

ACADEMIC REGULATIONS

Course Numbering

Each course has an individual alpha-numeric code. The alpha part indicates the subject area. Each number contains three figures. The first digit indicates the rank of the course (1 means that it is for freshmen, 2 for sophomores). The second figure indicates the number of semester hours credit. The third figure usually indicates the order in which the course is taken.

Exceptions to the preceding course numbering system occur in the Adult Training Programs where four digits are used to identify courses in these programs.

Admission to Class

The only way to become a member of a class is to register for it through the regular registration procedure.

Class Attendance and Absences

Regular and punctual attendance in classes and laboratories is expected of all students. Instructors should maintain attendance records and adhere to attendance policies formulated by their departments.

In general, the individual instructor approves absences. Absences approved because of engagement in a university activity are published in the academic bulletin. An approved absence allows the student to make-up examinations and written assignments without penalty. Although the student must make up the work missed, additional laboratory time is not granted the student.

All instructors should announce these policies concerning unexcused absences at the beginning of each semester.

Students who miss classwork to the extent that their laboratory performance may be unsafe or that they have no reasonable chance to pass the course may be dropped from that course by the department head. The department head must notify the student prior to this action.

Semester Hour

The unit of measure for credit purposes is the semester hour which means one hour of recitation (or equivalent in laboratory work) each week for one semester. For each classroom hour, two hours of study are expected. Two or more hours of laboratory work are counted equivalent to one classroom hour. For laboratory work which requires reports to be written outside of class, two clock hours are usually counted as one semester hour.

Course Load

Students may carry a load of 18 semester hours or the amount regularly scheduled for the first semester of the program being followed. Students entering on probation may not carry more than 15 semester hours. Students may carry a total of 18 semester hours during the 12-week Summer Session.

Overloads

The Dean of the School of Technical Arts must approve all overloads. In general, the student must demonstrate that he is capable of maintaining a high performance level in all classes.

Changing Schedules

No course may be added, changed or dropped without the permission of the Dean of the School of Technical Arts. Usually a course may not be added after the first week of the semester (first 2 days of summer session).

Dropping Course

A student may drop a course without penalty during the first 10 weeks (three weeks of the summer session) of the semester. The last date is published in the official university calendar.

For drops after this penalty-free period, grades are recorded as Q or F indicating that the student was passing or failing at the time of the drop.

A student may not drop a course the last three days prior to the last week of classes.

Withdrawals

A student wishing to withdraw for the remainder of the semester or summer term, should fill out a Withdrawal Petition in triplicate in the office of his academic dean. He must clear all financial obligations and return all uniforms, books, laboratory equipment and other materials to the point of original issue.

Three copies of the withdrawal form signed by the Dean of Technical Arts, the Director of Library Services, and an Associate Dean of Students, are presented to the Office of Admissions and Records by the student.

On application before the end of the semester or summer session the comptroller will return such fees as are returnable according to the schedule shown under the "Fees" section of the bulletin. This refund is made only to persons withdrawing and only if requested before the end of the current semester or summer session.

If a withdrawal is made before the end of the tenth week (third week of summer term), or if the student is passing at the time of withdrawal, a grade of W is issued for each course so affected. A grade of F is issued for all courses not being passed at time of withdrawal after this penalty-free period.

A student may not withdraw within three days of the beginning of final exam week.

A student who leaves without an official withdrawal will receive a grade of F in all courses and forfeit all returnable fees.

Enforced Withdrawal Because of Illness

The Director of the Health Center and the Vice-President of Student Affairs on the advice of competent medical personnel may require withdrawal or deny admission of a student for health reasons (mental or physical).

ACADEMIC PROGRESS

Classification of Students

Students are classified as freshmen, sophomores, and special with these considerations:

Freshman: has met all entrance requirements and has completed fewer than 30 semester hours.

Sophomore: has completed a minimum of 30 hours with 30 grade points.

Special: does not expect to earn a certificate or a degree but must meet all entrance requirements.

Grading System

A—Excellent
B—Good
C—Satisfactory
D—Passing
F—Failure
I—Incomplete
W—Withdrawn
Q—Course was dropped
S—Credit
U—Unsatisfactory; no credit
NG—No grade

The grade of W or Q is given if the withdrawal or drop is made before the penalty date or if the student is passing at the time of withdrawal or drop.

The grade of I is given when any requirement of the course, including the final examination, is not completed. Incomplete work must be finished during the next long semester or the Office of Admissions and Records must change the I grade to the grade of F. The course must then be repeated if credit is desired.

The instructor may record the grade of F for a student who is absent from the final examination and is not passing.

Semester grades are filed with the Office of Admissions and Records. A grade may not be recorded for a student not regularly enrolled in a course during the semester covered. A grade may not be corrected or changed without the written authorization of the instructor giving the grade. The written instruction for a grade change should be accompanied by a statement explaining the reason for the change.

Grade Points

For the purpose of computing grade averages, grade points are assigned as follows: to the grade of A, 4 points; to B, 3 points; to C, 2 points; to D, 1 point, and F, 0 points. A student's grade-point average is obtained by multiplying the number of semester credit hours of each grade by the grade points assigned to the grade and dividing the sum of these by the total number of semester hours of all work taken, whether passed or failed.

Credit for a course in which the grade of S is given is not included in computation of the grade-point average. A student is not given credit for the grades of NG or U nor are the semester hours used in computing the grade-point average.

Reports

Reports on grades are mailed at the end of each semester or summer term. Reports on student work are sent at mid-semester. Upon written request to the Office of Admissions and Records, married students may have grades sent directly to them.

Scholastic Probation and Suspension

Students are expected to make acceptable scholastic progress toward their training objective. Students who fail to make such progress and accumulate grade point deficiencies may be placed on scholastic probation or suspension.

Students who enter the School of Technical Arts with grade-point deficiencies in their university work are placed on scholastic probation. Students who are placed on scholastic probation must make at least a "C" average (2.0) on their first semester's work to be eligible for admission for a second semester.

All students with a grade-point deficiency (in courses taken in the School of Technical Arts) at the end of any regular semester shall be placed on scholastic probation and continued on probation as long as a deficiency exists. Students on scholastic probation may not take more than 15 hours in a semester.

Graduation Requirements

Generally a student is eligible for graduation when he has completed an approved program of study. Specifically, a student must:

1. Satisfy all admission conditions.
2. Complete an approved degree or certificate plan.
3. Not be on scholastic probation.
4. Complete his final semester's work at Lamar.
5. Make final application for graduation and pay all fees.
6. Attend the official graduation exercise or receive prior written permission from the Dean of the School of Technical Arts to be absent.

GENERAL REGULATIONS

New Courses

In order to meet changing educational requirements, the university reserves the right to **add any needed courses at any time without regard to the listing of such courses in the catalog.** It is expected that listing of these courses will appear in the next catalog issue.

Minimum Class Enrollment

The university reserves the right not to offer any courses listed in this catalog unless there are at least 12 students who register for the course.

Official Summons

An official summons from any administrative office takes precedence over all other university activities of the student and should be answered promptly on the day and hour designated. Failure to heed this official summons may subject the student to serious disciplinary action.

Discipline

Students of Lamar University are expected to conduct themselves in a mature manner, conforming to values and moral standards of good society. They are expected to obey the laws of the land and the regulations of the university. They are further expected to assume full responsibility for the consequences of their actions. Students should be aware of these expectations when they choose to enroll at Lamar University.

Disciplinary procedures, specific university rules and regulations, and statements of student rights and responsibilities are published each year in the Student Handbook, available from the office of the Vice-President of Student Affairs.

Disciplinary Probation

A student may be placed on disciplinary probation for unacceptable behavior at any time or place. The Dean of Students may classify behavior as unacceptable and may set the period of probation. The student has the privilege of appealing the decision to the Disciplinary Committee of the university. This appeal is made through the office of the Vice-President of Student Affairs.

Hazing

Lamar University is opposed to hazing in all of its various forms and will discipline all offenders in the spirit of the statutes governing this offense, as set forth in Chapter 4-A of Title 15 of **Vernon's Statutes in the State of Texas.**

Eligibility for Extracurricular Activities

An extracurricular activity is understood to be any activity representing the student body, any student organization, any department or division organization or any activity representing the university.

Any full-time student not on disciplinary or scholastic probation who is regularly registered is eligible to become a candidate and/or to hold student office or to represent the college in any extracurricular activity provided such student has a grade-point average of at least 2.0 for both the whole of his work completed at Lamar and that of the preceding semester.

For the purpose of establishing eligibility, two six-week summer terms may count as one semester.

Transfer students have the same eligibility as freshman students until completion of one semester at Lamar.

Parking Regulations

Each student who pays the necessary fee is issued a car decal which permits parking on the campus. This decal is numbered and is to be displayed as instructed in official parking and traffic regulations, which are issued when automobiles are registered. Strict observance of traffic and parking regulations is necessary for the safe, orderly flow of vehicles in the campus area.

STUDENT ACTIVITIES

Student life at the university includes many activities in addition to those connected with the courses of study. Some students find an opportunity for the development of their interests in clubs and social affairs. Others participate in athletics and physical activities, such as intercollegiate and intramural sports. Still others may be interested in dramatics, music, publications, student government, or religious life, in all of which there are opportunities for participation under faculty guidance and cooperation.

Student Government

All full-time students are automatically members of the Student Association at Lamar University. Officers of the association and representatives are elected annually and make up the Association's executive body known as the Student Government Association. The Association offers the student an opportunity to promote and to participate in self government and to participate in the management of a well-rounded program of student activities.

Publications

The University Press, the official university newspaper, is published regularly by a staff organized by a faculty sponsor. The publication serves both as a medium of training and as a source of information. Any student is eligible to become a staff member.

The Cardinal is the official yearbook of Lamar University. Any student is eligible to become a staff member. Those interested are urged to apply.

The Student Handbook is published primarily for the benefit of new students. Pertinent information concerning the university and student activities is given in this publication.

The Student Directory is published annually by the university. It contains a listing of the names, addresses, and telephone numbers of the student association, the faculty, and the administration.

Pulse, a student literary magazine, is published each semester by a student staff supervised by a faculty sponsor for the English Department. Any currently enrolled student may submit manuscripts for possible publication.

Interface is a quarterly magazine published by students. It accepts copy from all schools in the university.

The Lamar Engineer is published quarterly by the undergraduate students in the School of Engineering.

Artist Series

The Fine Arts Committee of the Setzer Student Center is made up of students and faculty. The committee annually arranges for the presentation of a number of programs by professional artists and entertainers. Outstanding personalities, musicians, artists, and companies have been presented under the sponsorship of the committee.

The Setzer Student Center

The Richard W. Setzer Student Center provides facilities for recreation and leisure and is the campus center of extracurricular activities. The recently completed addition, costing approximately $2,800,000, was opened in 1971. It includes lounges, snack bars, recreation areas, bookstore, ballroom, barbershop, meeting rooms, and facilities for student organizations. Offices for Student Government, Setzer Student Center Council, activities program counselors, and the Center's director are located there.

Student Organizations

More than 125 student organizations currently active on the campus offer membership in one or more service, professional, religious, social, and mutual interest clubs. For further information, consult the Student Handbook.

School of Technical Arts students are encouraged to join and participate in the local chapter of V.I.C.A., Vocational and Industrial Clubs of America. This organization contributes to the individual student's awareness of and pride in his chosen field.

Intramural Sports Program

Under the supervision of the directors of intramural sports, the Departments of Health and Physical Education offer intramural programs with opportunities for participation in recreational activities. Participation is voluntary and open to all full-time students. All Technical Arts students are urged to become involved in intramural sports.

SCHOOL OF TECHNICAL ARTS

The School of Technical Arts offers career-oriented education in 11 degree programs in the four departments in the School:

1. Industrial Department: Machine Tools, Welding, Diesel Mechanics, and Refrigeration and Air Conditioning Technology.
2. Technical Department: Business Data Processing, Industrial Electricity and Electronics Technology, Drafting Technology, and Police Science.
3. Health Services Department: Dental Hygiene and Radiologic Technology.
4. Related Arts Department: Mid-Management.

All of the above programs are two-year programs leading to an Associate of Applied Science degree and are designed to give the student training prior to his entry into a skilled trade or occupation.

Successful completion of one of these programs should provide the student with sufficient knowledge and skill to enter and advance rapidly in his selected field.

The curriculum of each program is designed to allow a student to enter any semester. The curriculum is also arranged so that the student has two routes by which he may obtain the Associate of Applied Science degree.

Plan I — A student meets the admission requirements of the School of Technical Arts and takes courses only in the School of Technical Arts.

Plan II — A student meets the general admission requirements of the institution. This plan is recommended if a student wishes to pursue a four-year degree or wishes to take courses in other Schools in the University.

In addition to the above degree programs, the School of Technical Arts offers Certificates of Completion in Vocational Nursing and in five Adult Training Programs.

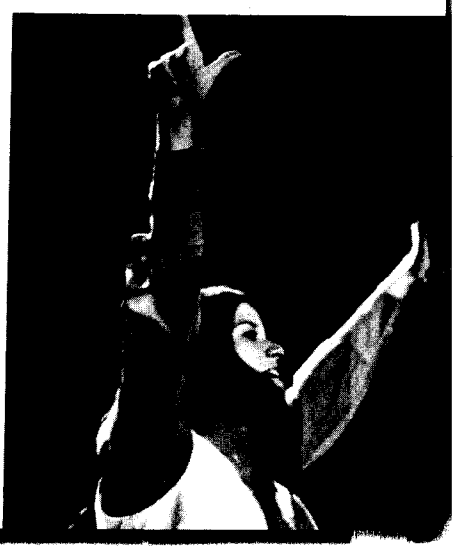
The Vocational Nursing program is a 12 month program and is part of the Health Services Department.

The five Adult Training Programs include:

1. Industrial Supervision
2. Law Enforcement Training
3. Nurse Assistant
4. Plant Maintenance and Operation
5. Real Estate

Extended Day Classes. Extended day classes (4:45 p.m. - 10 p.m.) are provided for students who may not attend the regularly scheduled day classes. While the total time will likely exceed two years, it is possible for a student to complete a degree by judiciously selecting courses offered in the extended day schedule.

Lamar University at Orange County. The educational center at Orange, Texas, offers occupational training in the fields of Drafting Technology and Radiologic Technology. The Center, first opened in 1971, will offer more occupational education as the branch campus develops.



HEALTH SERVICES DEPARTMENT

Dolores Jones, Department Head

Dental Hygiene
Radiologic Technology
Vocational Nursing

DENTAL HYGIENE

Director: James N. Brown, DDS *Instructor:* Linda Reynard

The objective of this program is to prepare the student for a career in the allied health field of Dental Hygiene. It is designed to develop the basic skills, knowledge, and training experiences necessary to produce dental hygienists. Each student will be assisted in the pursuit of technical competence by means of lectures, demonstrations, supervised study, and practical experience.

A student must enter this program under Plan II, and be selected by the Dental Hygiene Admission Committee.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

PROGRAM OF STUDY

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
BIO	133	Anatomy & Physiology	3	2	3
CHEM	143	Introductory	3	2	4
DH	131	Individual Preventive Dentistry	3	0	3
DH	132	Oral Anatomy & Physiology	2	2	3
DH	141	Dental Hygiene Techniques	2	6	4
DH	121	Medical & Dental Emergency Care	2	0	2
			15	12	19
Second Semester					
BIO	134	Anatomy & Physiology	3	2	3
DH	133	Radiology	1	4	3
DH	135	General & Oral Pathology	3	0	3
DH	142	Dental Hygiene Clinic I	2	8	4
DH	122	Pharmacology	2	0	2
BIO	245	Introductory Microbiology	3	2	4
			14	16	19
Third Semester					
ENG		Eng. Composition*	3	0	3
SOC	131	Intro. to Sociology	3	0	3
DH	221	Dental Materials	1	3	2
DH	222	Dental Specialties	2	0	2
DH	223	Oral Histology & Embryology	2	0	2
DH	241	Dental Hygiene Clinic II	1	12	4
			12	15	16
Fourth Semester					
PSY	131	Intro. to Human Behavior	3	0	3
H Ec	138	Principles of Nutrition	3	0	3
DH	231	Dental Health Seminar	3	0	3
DH	225	Community.Preventive Dentistry	2	0	2
DH	242	Dental Hygiene Clinic III	2	12	4
Elective*			3	0	3
			16	12	18

*By approval

Suggested electives in other Schools: SPC 131, GOV 231, CHEM 144.

Dental Hygiene (DH)

121 Medical & Dental Emergency Care. Emergency first aid and safe dental practices are introduced. Class: 2 hours. Credit: 2 semester hours.

122 Pharmacology. A study of the actions and uses of drugs and anesthetics with emphasis on those used in dentistry. Class: 2 hours. Credit: 2 semester hours.

131 Individual Preventive Dentistry. A study of the factors which contribute to oral health including the accepted methods of preventing cavities and periodontal disease. Class: 3 hours. Credit: 3 semester hours.

132 Oral Anatomy & Physiology. Detailed study of the anatomy of the teeth, tissues, and organs of the oral cavity, related structures, innervation and blood supply of the head, and form and function of the teeth. Class: 2 hours. Laboratory: 2 hours. Credit: 3 semester hours.

133 Radiology. The theory and technique of oral radiography, anatomical landmarks, arrangements and care of darkroom equipment and solutions, and proper processing. Class: 1 hour. Laboratory: 4 hours. Credit: 3 semester hours.

135 General and Oral Pathology. A study of the fundamental principles of disease processes. Includes histopathology of the more common diseases affecting the body as well as the pathological conditions of the teeth and their supporting structures. Correlation of histopathological changes and clinical manifestations of oral lesions to the principles of biopsy, handling of biopsy materials, and maintenance of records are included. Class: 3 hours. Credit: 3 semester hours.

141 Dental Hygiene Techniques. Instrumentation and clinical procedures in oral prophylaxis and topical application of fluorides. Lectures and demonstrations, including practice on manikins and care and use of instruments. Lectures to aid in a further understanding of a dental practice with on-the-job training. Sterilization, care and use of instruments, medical and dental emergencies which may arise in the dental office will be emphasized. Class: 2 hours. Laboratory: 6 hours. Credit: 4 semester hours.

142 Dental Hygiene Clinic I. Applications of principles in clinical practice of dental hygiene. Skills in giving oral prophylaxis, topical applications of fluorides, and patient education are developed. Application of oral radiography technique is developed with patients. Class: 2 hours. Laboratory: 8 hours. Credit: 4 semester hours.

221 Dental Materials. A general study of the sources, properties, uses, and techniques of manipulation of the materials commonly used in dentistry. The student will apply this in "on-the-job training." Class: 1 hour. Laboratory: 3 hours. Credit: 2 semester hours.

222 Dental Specialties. The specialized areas of dental practice are described with the objective of providing a broad background of information that can facilitate the attainment of the requisite degrees of understanding and appreciation. It is intended to assist in establishing a proper perspective of dental hygiene in its relationship to the subdivisions of dentistry. Class: 2 hours. Credit: 2 semester hours.

RADIOLOGIC TECHNOLOGY

Instructor: Marilyn H. Chitwood.

The objective of this program is to prepare the student for a career in the allied health field of Radiologic Technology. Acceptance by one of the affiliate hospitals for clinical laboratory experience is necessary for the completion of the course of study. Each student will be assisted in his pursuit of technical competence by means of lectures, demonstrations, supervised study, and practical experience.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
RA	135	Orientation and Ethics	3	0	3
RA	137	Anatomy and Physiology	3	0	3
RA	145	Radiologic Technology Practicum	0	25	4
TM	131	Fundamentals of Math I or Mth. 131 (Math. Dept.)*	3	0	3
BC	131	Basic Communications Eng. Comp. (Eng. Dept.)*	3	0	3
			12	25	16
Second Semester					
RA	136	Principles of Radiographic Exposure	3	0	3
RA	138	Radiographic Positioning	3	0	3
RA	146	Radiographic Technology Practicum	0	25	4
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
JR	232	Human Relations or PSY 131 (Psy. Dept.)*	3	0	3
			12	25	16
Third Semester					
RA	231	Special Procedures I	3	0	3
RA	233	Film Critique	3	0	3
RA	235	Radiologic Physics	3	0	3
RA	245	Radiologic Technology Practicum	0	25	4
Elective†			3	0	3
			12	25	16
Fourth Semester					
RA	232	Special Procedures II	3	0	3
RA	234	Advanced Procedures	3	0	3
RA	246	Radiologic Technology Practicum	0	25	4
Electives*			6	0	6
			12	25	16

*Students who take these courses must meet the general admission requirements of the institution.
†By approval.

Suggested Technical Arts electives: MM 131, MM 132, MM 231, MM 233, TM 133, TM 231, BC 231, BC 232, JR 232.

Suggested electives in other Schools: ECO 131, ECO 132, EDU 330, EDU 331, BIO 130, PSY 332, PSY 330, PSY 131, JOU 131.

Radiologic Technology (RA)

135 Orientation and Ethics. The fundamental principles of radiologic technology, and the part radiologic technology plays in the medical field will be stressed. Students will become acquainted with ethical principles, responsibilities of the paramedical professions and their relationship to the radiologic technician. Class: 3 hours. Credit: 3 semester hours.

136 Principles of Radiographic Exposure. Principles and fundamentals of electricity and of the paramedical professions and fundamentals of electrical and radiation physics are taught along with the basic principles underlying the operation of X-ray equipment and auxiliary devices. Class: 3 hours. Credit: 3 semester hours.

137 Anatomy and Physiology. This course is designed to give an understanding of functional anatomy and the basic principles of the different systems of the body and their physiological activities. Class: 3 hours. Credit: 3 semester hours.

138 Radiographic Positioning. This course is designed to acquaint the student technician with the common procedures in radiography. Topics of study include the use of equipment and media, including contrast media; the reactions and contra-indications of these media; nursing procedures pertinent to radiology; and the role of the X-ray technician in various nursing situations. Class: 3 hours. Credit: 3 semester hours.

145 Radiologic Technology Practicum. Each student is required to average 25 hours per week in closely supervised laboratory practice of basic radiation and positioning. Anatomy and physiology as they relate to radiography will be discussed as well as professional ethics, and the critique of X-ray films. Co-requisite: RA 135 and 137. Clinical Lab: 25 hours. Credit: 4 semester hours.

146 Radiologic Technology Practicum. Student technicians will spend a minimum of 25 hours per week in supervised practice of both common radiologic procedures and specific procedures described in classroom lecture. Radiographic positioning of patients and radiographic exposure using contrast media will be emphasized during the lab period. Prerequisite: RA 145. Clinical Lab: 25 hours. Credit: 4 semester hours.

231 Special Procedures I. Special radiographic procedures acquaint the student technician with the specialized and highly technical procedures in radiology, and in the equipment and opaque media used. Anatomy is reviewed from the standpoint of topographic anatomy and the relationship of organs to each other. Radiation protection and safety to patients and to other personnel. Class:3 hours. Credit: 3 semester hours.

232 Special Procedures II. Special radiographic procedures will acquaint the student technician with the specialized and highly technical procedures of radiology. Included in the course will be a study of radiation therapy, nuclear medicine, and intraoral radiography. Critique of film will be stressed. Prerequisite: RA 231. Class: 3 hours. Credit: 3 semester hours.

233 Film Critique. A study of radiographic procedures is continued in this course. Qualitative evaluation of roentgenograms is an integral part of the study. Prerequisite: RA 138. Class: 3 hours. Credit: 3 semester hours.

234 Advanced Procedures. A study of advanced procedures in radiography. Additional subjects will include a survey of medical and surgical diseases, departmental administration, equipment maintenance and a general review. Prerequisite: RA 233. Class: 3 hours. Credit: 3 semester hours.

235 Radiologic Physics. An intensive study of electromagnetism, electric transformers, electrical rectification, production of Xrays, and preventive maintenance of X-ray machines. Prerequisite: RA 136. Class: 3 hours. Credit: 3 semester hours.

245 Radiologic Technology Practicum. This practicum will further emphasize the practice of specific positioning of the area to be X-rayed. Special training will be given in the use of radioisotopes in X-ray and in other special and emergency procedures. Prerequisite: RA 146. Clinical Lab: 25 hours. Credit: 4 semester hours.

246 Radiologic Technology Practicum. The practicum is designed to further train the student technician in the common procedures in radiography involving the use of contrast media, the equipment and media used, and the reactions and contraindications to these media, nursing procedures pertinent to radiology, and in the general care of the patient with emphasis on the role of the X-ray technician in various nursing and administrative situations. Prerequisite: RA 232 and 234. Clinical Lab: 25 hours. Credit: 4 semester hours.

VOCATIONAL NURSING

Director: Dolores Jones. Instructors: Nina Adkins, Norma Aycock, Cornie Fletcher, Ann Keen, Virginia Rudloff, Faye Stone, Bernice Sturrock, Edna Mary Terrell.

The objective of this program of study is to prepare the student to obtain gainful employment as a Vocational nurse. Upon successful completion of the course, the graduate is eligible to take the examination given by the State Board of Vocational Nurse Examiners to become a Licensed Vocational Nurse (L.V.N.).

Applicants must meet the admission requirements of the School of Technical Arts and be selected by the Vocational Nursing Admission Committee. The applicant must exhibit sufficient maturity to assume the responsibilities required of a nurse, pass a physical examination, have hospitalization insurance, and take the Scholastic Aptitude Test.

The curriculum will be divided into two (2) periods: the first sixteen (16) weeks will be the pre-clinical phase and the next eight (8) months will be the clinical phase. During the pre-clinical phase the student will receive primarily classroom theory, with limited correlation with hospital experience.

During the clinical phase the student will spend four days a week in the affiliating hospital with one day a week of formal classroom work. The hospital experience includes actual patient care in medical, surgical, obstetrics, pediatrics, and other specialized areas in the hospital. Most of the hospital experience will be spent on the day shift, but after the first two months students may be assigned to evening or night shifts. This duty will be at the discretion of the instructor and hospital supervisor. The students receive a stipend from the hospital during the clinical phase of their training.

Classes begin only in January, May, and August, and the nursing courses must be taken in sequence. A grade of "C" or better must be maintained in all nursing courses to advance in the program. A course which has been failed may be repeated once, and failure of a future course will automatically drop the student from the program.

A person who successfully completes this instructional program is awarded a Certificate of Completion.

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
VN	121	Ethics	2	0	2
VN	122	Nutrition and Diet Therapy	2	0	2
VN	133	Pharmacology	3	0	3
VN	144	Anatomy and Physiology	4	0	4
VN	175	Nursing Skills	2	10	7
			13	10	18
Second Semester					
VN	136	Medical Surgical Nursing I	3	0	3
VN	137	Medical Surgical Nursing II	3	0	3
VN	166	Clinical Practice I	0	16	6
VN	167	Clinical Practice II	0	16	6
			6	32	18

Third Semester

VN	138	Obstetrical Nursing	3	0	3
VN	139	Pediatric Nursing	3	0	3
VN	168	Clinical Practice III	0	16	6
VN	169	Clinical Practice IV	0	16	6
			6	32	18

Vocational Nursing (VN)

121 Ethics. Personal and vocational adjustments including aspects of community health, disease prevention and mental health. Class: 2 hours. Credit: 2 semester hours.

122 Nutrition and Diet Therapy. This course is designed to acquaint the student with the fundamental principles of basic nutrition, the relationship of food to normal health, and the application of basic principles of nutrition to diet therapy in the treatment of disease. Class: 2 hours. Credit: 2 semester hours.

133 Pharmacology. This course is designed to introduce the student to pharmacology and the administration of medicines. Class: 3 hours. Credit: 3 semester hours.

144 Anatomy and Physiology. The primary objective is to introduce principles of the biological and physical sciences that contribute to the student's understanding of the human body process in normal and certain abnormal conditions. Class: 4 hours. Credit: 4 semester hours.

136 Medical Surgical Nursing I. Specific theory in the disease and conditions of integumentary, special sensory, respiratory, endocrine, muscular, and cardiovascular systems. Class: 3 hours. Credit: 3 semester hours.

137 Medical Surgical Nursing II. Specific theory in the disease and conditions of gastrointestinal, genitourinary, male and female reproductive, nervous, and skeletal systems. Class: 3 hours. Credit: 3 semester hours.

138 Obstetrical Nursing. Specific theory on the care of mothers and new born infants. Class: 3 hours. Credit: 3 semester hours.

139 Pediatric Nursing. Specific theory on the care of sick children. Class: 3 hours. Credit: 3 semester hours.

166 Clinical Practice I. General care of medical patients. Hospital practice. Co-requisite: VN 136. Laboratory: 16 hours. Credit: 6 semester hours.

167 Clinical Practice II. General care of surgical patients. Hospital practice. Co-requisite: VN 137. Laboratory: 16 hours. Credit: 6 semester hours.

168 Clinical Practice III. General care of mothers and new born infants. Hospital practice. Co-requisite: VN 138. Laboratory: 16 hours. Credit: 6 semester hours.

169 Clinical Practice IV. General care of sick children. Hospital practice. Co-requisite: VN 139. Laboratory: 16 hours. Credit: 6 semester hours.

175 Nursing Skills. The skills designed to prepare the student in the techniques of basic nursing procedures including ability to meet emergencies. The operation of hospital equipment will be taught in this course. Class: 2 hours. Laboratory: 10 hours. Credit: 7 semester hours.

INDUSTRIAL DEPARTMENT

M. Paul Roy, Department Head

Diesel Mechanics

Machine Tools

Refrigeration and Air Conditioning Technology

Welding

DIESEL MECHANICS

Instructors: Sam Lucia, James H. Smith and Doyle R. Bice.

The Diesel Mechanics course of study is designed to prepare the student for a career in the operation, repair, and maintenance of diesel engines.

The objectives of the program are to provide the student with the technical background in the design and construction of diesel engines, and to offer experiences which will develop skills in their operation, repair, and maintenance.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
DM	131	Introduction to Diesel Mechanics	3	0	3
DM	132	Diesel Cycle Application	3	0	3
DM	136	Basic Shop Procedures	0	7	3
DM	137	Precision Instrument Usage	0	7	3
TM	131	Fundamentals of Mathematics I or Mth 131 (Math. Dept.)*	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Second Semester					
DM	134	Related Systems	3	0	3
DM	135	Maintenance & Repair Problems	3	0	3
DM	138	Tune-up	0	7	3
DM	139	Accessory Servicing	0	7	3
TM	132	Fundamentals of Mathematics II or Mth 132 (Math Dept.)*	3	0	3
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Third Semester					
DM	231	Ignition and Combustion Principles	3	0	3
DM	232	Diesel Fuel & Lubrication	3	0	3
DM	236	Troubleshooting & Installation	0	7	3
DM	237	Advanced Diesel Engines Maintenance	0	7	3
TM	231	Applied Geometry	3	0	3
JR	231	Job Relations	3	0	3
			12	14	18

Fourth Semester

DM	234	Overhaul Procedures	3	0	3
DM	235	Fuel Injection System	3	0	3
DM	238	Dynamometer Operation & Analysis	0	7	3
DM	239	Diesel Engine Hydraulics	0	7	3
TM	232	Industrial Mathematics	3	0	3
Elective†			3	0	3
			12	14	18

*Students who take these courses must meet the general admission requirements of the institution.
†By Approval

Suggested Technical Arts electives: MM 131, BC 231, BC 232, JR 232, MM 233, MT 133, WLD 133, DFT 133, IEE 133, TM 134, MM 132, MM 133, MM 231, MM 232, MM 236, MM 237.

Diesel Mechanics (DM)

131 Introduction to Diesel Mechanics. General description and construction of engines, diesel engine principles, frames, cylinders, heads, and pistons. Class: 3 hours. Credit: 3 semester hours.

132 Diesel Cycle Application. The diesel cycle, its advantages and applications. The basic problems of operations and the design and construction of diesel engines are studied. Class: 3 hours. Credit: 3 semester hours.

134 Related Systems. Engine cooling, air intake systems, exhaust systems, and starting systems. Prerequisite: DM 131 and 132. Class: 3 hours. Credit: 3 semester hours.

135 Maintenance & Repair Problems. Maintenance and repair problems of the diesel engine. The checking of bearing clearances and the installation of piston rings are stressed. Prerequisite: DM 131 and 132. Class 3 hours. Credit: 3 semester hours.

136 Basic Shop Procedures. Installation, operation, maintenance, and repair of diesel engines, hand tools and precision instruments, shop safety, fastening devices and tubing fabrication. Laboratory: 7 hours. Credit: 3 semester hours.

137 Precision Instrument Application. Installation, operation, maintenance, and repair of diesel engines, disassembly, measuring, checking for wear, proper assembly, correct use of taps and dies, flaring tools and torque wrenches. Laboratory: 7 hours. Credit: 3 semester hours.

138 Tune-up and Repair. Valve reconditioning, cylinder head repairs, engine operation and testing, diesel engine operation, shop safety, engine adjustments, cylinder and piston reconditioning. Prerequisite: DM 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

139 Accessory Servicing. Repair of water pumps, oil pumps, fuel pumps, blowers, minor engine tune-up, valve train and turbocharger repair. Prerequisite: DM 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

231 Ignition and Combustion Principles. Electrical systems, governors, fuels and combustion, and fuel systems. Prerequisite: DM 131 and 132. Class: 3 hours. Credit: 3 semester hours.

232 Diesel Fuel and Lubrication. A comprehensive study of diesel fuels and lubricating oils. Basic electricity, electrical and gasoline starting systems are also stressed. Prerequisite: DM 131 and 132. Class: 3 hours. Credit: 3 semester hours.

236 Troubleshooting and Installation. Installation, operation, maintenance, and repair of diesel engines, electrical systems, generators, alternators, cranking motors, regulators, governors, steering clutches, final drives, track and roller frames. Prerequisite: DM 138 and 139 or DM 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

237 Advanced Diesel Engine Maintenance. Installation, operation, maintenance, and repair of diesel engines, fuel systems, oil pumps, filters, oil pressure regulators, natural gas carburetors, natural gas regulators, and preventive maintenance. Prerequisite: DM 138 and 139 or DM 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

234 Overhaul Procedures. Engine overhauling, special repairs, salvaging, hydraulics, and terms used in diesel engineering. Prerequisite: DM 231 and 232 or DM 134 and 135. Class: 3 hours. Credit: 3 semester hours.

235 Fuel Injection Systems. Fuel injection systems, hydraulics and its application, engine tune-up and troubleshooting. Prerequisite: DM 231 and 232 or DM 134 and 135. Class: 3 hours. Credit: 3 semester hours.

238 Dynamometer Operation and Analysis. Installation, operation, maintenance, and repair of diesel engines, fuel injection systems, fuel injection pumps, injector nozzles, unit injectors, engine performance, testing and engine dynamometer. Prerequisite: DM 236 and 237 or DM 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

239 Diesel Engine Hydraulics. Installation, operation, maintenance, and repair of diesel engines, hydraulic pumps, hydraulic controls, hydraulic power applications, advanced engine overhaul, special repairs, diagnosing, and tune-up. Prerequisite: DM 236 and 237 or DM 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

133 Small Engines. The operation and repair of small internal combustion engines. Diagnosis and troubleshooting will be emphasized. Class: 3 hours. Credit: 3 semester hours.

MACHINE TOOLS

Instructors: Gus A. Carlsen, M. Paul Roy, and Emmett L. Black.

Machine Tools is a two-year program designed to train students in the proper use of modern metal-removing machine tools. The curriculum is designed to develop those skills, abilities, and perceptions needed to permit the graduate to advance in the industrial complex as a competent craftsman.

The objectives of the program include the promotion of desirable attitudes and the development of needed manipulative skills. The students are consistently encouraged to develop a sense of responsibility and self-reliance.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
MT	131	Intro. to Hand & Machine Tools	3	0	3
MT	132	Fundamentals of Lathe, Shaper & Planer	3	0	3
MT	136	Basic Drill Press & Lathe	0	7	3
MT	137	Bench Tools & Layout	0	7	3
TM	131	Fundamentals of Mathematics I or Math 131 (Math. Dept.)*	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Second Semester					
MT	134	Milling Machines	3	0	3
MT	135	Introduction to Grinding Machines	3	0	3
MT	138	Milling Processes	0	7	3
MT	139	Milling & Grinding Procedures	0	7	3
TM	132	Fundamentals of Mathematics II or Math 132 (Math Dept.)*	3	0	3
BC	132	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Third Semester					
MT	231	Advanced Lathe and Drill Press Detail	3	0	3
MT	232	Applications of Lathe and Drill Press	3	0	3
MT	236	Multi-Machine Projects	0	7	3
MT	237	Gauges & Inspection	0	7	3
TM	231	Applied Geometry	3	0	3
JR	231	Job Relations	3	0	3
			12	14	18

Fourth Semester

MT	234	Advanced Grinding and Milling Techniques	3	0	3
MT	235	Problems in Grinding and Milling	3	0	3
MT	238	Layout & Set-up	0	7	3
MT	239	Machine Design & Maintenance	0	7	3
TM	232	Industrial Mathematics	3	0	3
Elective†			3	0	3
			12	14	18

*Students who take these courses must meet the general admission requirements of the institution.
†By Approval

Suggested Technical Arts electives: MM 131, MM 132, MM 133, MM 231, MM 232, MM 233, BC 231, BC 232, JR 232, DM 133, DFT 133, IEE 133, WLD 133, WLD 235, TM 133, TM 134.

Machine Tools (MT)

131 Introduction to Hand and Machine Tools. A study of the hand and machine tools used in the modern machine shop with emphasis on safety, measuring tools, lathe, shaper, drill press and planer. The course includes blueprints and sketches as they apply to machine work. Class: 3 hours. Credit: 3 semester hours.

132 Fundamentals of Lathe, Shaper, and Planer. Further consideration of lathe and its capabilities. Principles and problems of shapers and planers. Blueprint interpretations. Class: 3 hours. Credit: 3 semester hours.

134 Milling Machines. Various types of milling machines and their diverse operations. Principles with emphasis on setups. Blueprint reading advanced. Class: 3 hours. Credit: 3 semester hours.

135 Introduction to Grinding Machines. Grinders of different types, grinding wheels, and heat treatment of steels. Proper setups for metal removal with grinding wheels. Blueprint interpretation extended. Class: 3 hours. Credit: 3 semester hours.

136 Basic Drill Press and Lathe. A laboratory study with use of various hand and machine tools. Special emphasis is placed on safety, bench work, the lathe, and dril' press. Laboratory: 7 hours. Credit: 3 semester hours.

137 Bench Tools and Layout. A continuation of the development of manipulative skills with bench tools, gauges, layout, and setups common to the drill press, lathe, and shaper. Laboratory: 7 hours. Credit: 3 semester hours.

138 Milling Processes. Typical processes, jobs and setups are employed to further develop skills and understanding of the machining process. Additional projects are aimed at gaining experience with companion machine tools. Laboratory: 7 hours. Credit: 3 semester hours.

139 Milling and Grinding Procedures. Additional emphasis is placed on implementation of different types of mills and their attachments. The association of the grinder with the mill is introduced. Laboratory: 7 hours. Credit: 3 semester hours.

231 Advanced Lathe and Drill Press Detail. Lathe, drill press and details of layout, setup and operations are extended. Blueprints continued. Prerequisite: MT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

232 Applications of Lathe and Drill Press. Problems encountered in diverse applications of lathes and drill presses. Precision measuring and gauging instruments. Further blueprint study. Prerequisite: MT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

234 Advanced Grinding and Milling Techniques. Advanced treatment of various machine tools involved in planing, milling, and grinding of metals. Problems in blueprint reading. Prerequisite: MT 134 and 135. Class: 3 hours. Credit: 3 semester hours.

235 Problems in Grinding and Milling. Further discussion of grinding and milling principles and problems. Fundamental treatment of hydraulics as applied to machine tools. Advanced study of blueprints and sketches. Prerequisite: MT 134 and 135. Class: 3 hours. Credit: 3 semester hours.

236 Multi-Machine Projects. Jobs and processes involving the use of various machine tools with close tolerances throughout. Stress is placed on improving time consumption. Prerequisite: MT 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

237 Gauges and Inspection. A continuation of the development of manipulative skills with additional practice in close tolerance measuring and inspection. Prerequisite: MT 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

238 Layout and Setup for Mills and Grinders. Laboratory practice in the proper procedures and methods for layout and setup. Tool and cutter grinding is treated. Time utilization and accuracy are pronounced. Prerequisite: MT 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

239 Machine Design and Maintenance. Maintenance and repair of laboratory machine tools is implemented to expand ability and manipulative skills. Assembly projects which involve several machine tools are promoted. Prerequisite: MT 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

133 Machine Shop. Practice in the use of hand and machine tools of the modern machine shop. Class: 1 hour. Laboratory: 4 hours. Credit: 3 semester hours.

REFRIGERATION AND AIR CONDITIONING TECHNOLOGY

Instructors: Ellis Thompson and John W. Crawley

Refrigeration and Air Conditioning Technology is a program of study designed to produce a refrigeration and air conditioning technician.

The objectives of the program include the development of skills and knowledge, attitudes, and problem solving ability in air conditioning and refrigeration. The graduate is prepared to enter the field of refrigeration or air conditioning as a capable craftsman.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
RAC	131	Basic Refrigeration Principles	3	0	3
RAC	132	Basic Electricity and Electrical Devices	3	0	3
RAC	136	Basic Refrigeration	0	7	3
RAC	137	Basic Refrigeration and Service	0	7	3
TM	131	Fundamentals of Mathematics I or Mth 131 (Math. Dept.)*	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Second Semester					
RAC	134	Refrigeration Theory	3	0	3
RAC	135	Commercial Refrigeration	3	0	3
RAC	138	Basic Electrical Wiring and Testing Procedures	0	7	3
RAC	139	Basic Electrical Wiring and Control Systems	0	7	3
TM	132	Fundamentals of Mathematics II or Mth 132 (Math. Dept.)*	3	0	3
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Third Semester					
RAC	231	Principles of Air Conditioning	3	0	3
RAC	232	Air Conditioning Processes	3	0	3
RAC	236	Installation & Repair of Forced Air Heating & Cooling Systems	0	7	3
RAC	237	Automobile Air Conditioning	0	7	3
TM	231	Applied Geometry	3	0	3
JR	231	Job Relations	3	0	3
			12	14	18

Fourth Semester

RAC	234	Advanced Air Conditioning	3	0	3
RAC	235	Cooling Towers	3	0	3
RAC	238	Advanced Air Conditioning	0	7	3
RAC	239	Heat Pumps	0	7	3
Electives†			6	0	6
			12	14	18

*Students who take these courses must meet the general admission requirements of the institution.
†By Approval

Suggested Technical Arts electives: MM 131, MM 132, MM 133, MM 232, MM 233, BC 231, BC 232, JR 232, DM 133, DFT 133, IEE 133, WLD 133, TM 232.

Refrigeration and Air Conditioning Technology (RAC)

131 Basic Refrigeration Principles. The history of refrigeration, theory of heat, compression cycle, metering devices, and components of the refrigeration cycle. Class: 3 hours. Credit: 3 semester hours.

132 Basic Electricity and Electrical Devices. Servicing commercial refrigeration, heat loads, defrosting, basic electric control, and wiring diagrams, capacitors and relays. Class: 3 hours. Credit: 3 semester hours.

134 Refrigeration Theory. Related knowledge necessary in chemistry for refrigeration, cooling coil and condenser design, refrigerant flow controls, electrical control requirements, manufacturers' tables, charts, diagrams, and engineering specification sheets, safety to be used in refrigeration work. Prerequisite: RAC 131 and 132. Class: 3 hours. Credit: 3 semester hours.

135 Commercial Refrigeration. Introduction to and history of commercial refrigeration trade, knowledge necessary in servicing and repairing electrical motors, motor controllers, measuring power in electrical circuits, calculating compressor tonnage capacities, steps in the systematic analysis of refrigeration circuits, and applications of commercial refrigeration. Prerequisite: RAC 131 and 132. Class: 3 hours. Credit: 3 semester hours.

136 Basic Refrigeration. Methods of cutting, flaring and bending copper tubing, soldering (hard and soft), leak testing, evacuating, and charging of reciprocating equipment. Gauges installation, removal, and calibration. Laboratory: 7 hours. Credit: 3 semester hours.

137 Basic Electrical Wiring and Testing Procedure. Electric motors, controls and transformers. Finding common start and run on sealed units, changing motor starting switches, testing and wiring single phase and shaded pole motors. Laboratory: 7 hours. Credit: 3 semester hours.

138 Basic Refrigeration and Service Procedure. Adding and removal of refrigerant, repair of domestic refrigerators and freezers. Tracing and installation of refrigeration circuits, leak testing, evacuating and system charging. Prerequisite: RAC 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

139 Basic Electrical Wiring and Control Systems. Commercial refrigeration. Installation of time clocks, automatic defrosting, and pressure defrost. Wiring of low pressure controls, magnetic starters and temperature controls. Prerequisite: RAC 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

231 Principles of Air Conditioning. Refrigeration for summer air conditioning, air cycle, properties of air, cooling and heating load estimation. Estimation of air supply. Low voltage controls. Prerequisite: RAC 134 and 135. Class: 3 hours. Credit: 3 semester hours.

232 Air Conditioning Processes. Tracing air conditioning processes on the psychrometric charts, refrigeration for air conditioning, automatic controls for heating, automatic controls for cooling, wiring diagrams, and refrigeration, tubing sizing and installing practices. Prerequisite: RAC 134 and 135. Class: 3 hours. Credit: 3 semester hours.

234 Advanced Air Conditioning. Air conditioning survey for commercial and or residential system design, cost estimates, codes, calculations for condition air supply, fan types, room air conditioners, air conditioning and heat pumps. Prerequisite: RAC 231 and 232. Class: 3 hours. Credit: 3 semester hours.

235 Cooling Towers. Selecting, sizing, and installing cooling towers, piping and pumps. Central station equipment, water chillers, boilers, absorption refrigeration, refrigerant piping data, steam lines, electrical data and tools of the estimator. Prerequisite: RAC 231 and 232. Class: 3 hours. Credit: 3 semester hours.

236 Installation and Repair of Forced Air Heating and Cooling Systems. Skills in the correct use of instruments, fitting and installing ducts, service of limit switches, fan controls, blowers, and filters. Setting and checking oil failure switches. Prerequisite: RAC 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

237 Automobile Air Conditioning. Service and installation. Cooling towers and pumps. Water piping: threading and installation. Three phase motors, heat pumps, compressor valve plates and shaft seals. Electronic filters and humidifiers. Prerequisite: RAC 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

238 Advanced Air Conditioning. Sizing, installing and checking central air conditioning systems. Use of air meters, velocity meters, changing valve plates, compressor seals, and tracing grounds. Operate and service hermitic compressors, and acidize cooling towers. Prerequisite: RAC 236 and 237. Laboratory: 7 hours. Credit: 3 semester hours.

239 Heat Pumps. Installation, operation, maintenance and repair of gas heating, gas cooling, and heat pumps. Automobile air conditioning and service of water cooled equipment. Calibration of gauges and meters. Use of electronic leak testers and vacuum gauges. Prerequisite: RAC 236 and 237. Laboratory: 7 hours. Credit: 3 semester hours.

WELDING

Instructors: Joel C. Shankles, Carey B. Wesley, and Ronald I. Marble.

Welding is a program designed to prepare the student for a career in the fields of industrial or construction welding, either as a competent welder or in a position which requires knowledge of welding, welding equipment, or supplies.

The objective of the program is to develop the skills in modern welding practices. Safety and proper work habits are also stressed.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab. Hours	Semester Hours
First Semester					
WLD	131	Study of Tools, Mat'ls & Processes	3	0	3
WLD	132	Principles of Flame Cutting and Arc Welding Equipment	3	0	3
WLD	136	Welding Operations	0	7	3
WLD	137	Welding & Cutting	0	7	3
TM	131	Fundamentals of Mathematics I or Mth. 131 (Math. Dept.)*	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Second Semester					
WLD	134	Processes Related to Welding	3	0	3
WLD	135	A.C. and D.C. Supplies	3	0	3
WLD	138	Test Qualifications	0	7	3
WLD	139	Welding and Brazing	0	7	3
TM	132	Fundamentals of Mathematics II or Mth. 132 (Math. Dept.)*	3	0	3
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	14	18
Third Semester					
WLD	231	Pipe Welding and Layout	3	0	3
WLD	232	Fundamentals of Inert Gas Welding	3	0	3
WLD	236	Ferrous Metals & Pipe	0	7	3
WLD	237	Layout and Fabrication	0	7	3
TM	231	Applied Geometry	3	0	3
JR	231	Job Relations	3	0	3
			12	14	18

Fourth Semester

WLD	234	Special Welding Application	3	0	3
WLD	235	Intro. to Metallurgy and Heat Treatment	3	0	3
WLD	238	Inert Gas and Non-Ferrous Metal	0	7	3
WLD	239	Adv. Ferrous & Non-Ferrous Welding	0	7	3
TM	232	Industrial Mathematics	3	0	3
Elective†			3	0	3
			12	14	18

*Students who take these courses must meet the general admission requirements of the institution.
†By approval

Suggested Technical Arts electives: MM 131, MM 132, MM 133, MM 232, BC 231, BC 232, JR 232, MM 233, DM 133, DFT 133, IEE 133, MT 133, TM 133, TM 134.

Welding (WLD)

131 Study of Tools, Materials, and Processes. A study of welding tools and materials and their relation to the welding process. Blueprint reading and sketching are initiated. Class: 3 hours. Credit: 3 semester hours.

132 Principles of Flame Cutting and Arc Welding Equipment. Study of tools, safety flame cutting, and arc welding equipment and processes. Blueprint reading is also studied. Class: 3 hours. Credit: 3 semester hours.

134 Processes Related to Welding. Tools, materials, and processes as related to welding is continued. Emphasis on blueprint reading and sketching. Prerequisite: 131 and 132. Class: 3 hours. Credit: 3 semester hours.

135 A.C. and D.C. Supplies. Study of AC and DC arc welding supplies. Various arc cutting processes studied. Layout work along with blueprint reading will be stressed. Prerequisite: WLD 131 and 132. Class: 3 hours. Credit: 3 semester hours.

136 Operation of Welding Tools. Operation and use of arc welding tools and equipment; acetylene welding tools and equipment. Emphasis on safety. Laboratory: 7 hours. Credit: 3 semester hours.

137 Welding & Cutting. Continuation of arc welding in horizontal, vertical, and overhead positions. Gas welding in horizontal position. Cutting straight lines. Laboratory: 7 hours. Credit: 3 semester hours.

138 Test Qualifications. Butt plate welding and test qualifications. Flat and vertical welds on Vee groove plate. Prerequisite: 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

139 Welding and Brazing. Welding Vee groove plate in all positions. Testing for qualification in all positions. Cutting and gas welding. Introduction to brazing. Prerequisite: 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

231 Pipe Welding and Layout. Continuation of special welding and cutting techniques. Blueprint reading and pipe layout. Prerequisite: WLD 131 and 132. Class: 3 hours. Credit: 3 semester hours.

232 Fundamentals of Inert Gas Welding. T.I.G., M.I.G., submerged arc. The heliarc, microwire, submerged arc, and innershield processes of welding and their applications. Blueprint reading and layout. Prerequisite: WLD 131 and 132. Class: 3 hours. Credit: 3 semester hours.

234 Special Welding Application. Special welding applications, brazing, soldering and resistance welding will be studied in this course. Continuation of blueprint reading and layout. Prerequisite: WLD 134 and 135 or WLD 231 and 232. Class: 3 hours. Credit: 3 semester hours.

235 Introduction to Metallurgy and Heat Treatment. Introduction to metallurgy, metal identification, and heat treatment. Procedure and welder qualifications studied. Blueprint reading and pipe layout continued. Prerequisite: WLD 134 and 135 or WLD 231 and 232. Class: 3 hours. Credit: 3 semester hours.

236 Ferrous Metals and Pipe. Introduction to heliarc process with aluminum and alloys. Continuation of welding ferrous metals and pipe. Safety emphasized. Prerequisite: WLD 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

237 Layout and Fabrication. Thorough instruction in layout, fabrication, and welding pipe installations. Precision flame cutting. Advanced heliarc welding of aluminum, stainless steel and alloys. Prerequisite WLD 136 and 137. Laboratory: 7 hours. Credit: 3 semester hours.

238 Inert Gas and Non-Ferrous Metal. Operation of metal inert gas (M.I.G., micro-wire) on steel plate and pipe. Extensive pipe layout, fabrication and welding. Oxy-acetylene flame cutting and fitting. Prerequisite: WLD 236 and 237 or WLD 138 and 139. Laboratory: 7 hours. Credit: 3 semester hours.

239 Advanced Ferrous and Non-Ferrous Welding. Advanced pipe welding procedures. Extended T.I.G. and M.I.G. welding practice. Development of skills in setup and operation of submerged arc and inner-shield welding equipment. Emphasis on safety and welder qualification testing. Prerequisite: WLD 138 and 139 or WLD 236 and 237. Laboratory: 7 hours. Credit: 3 semester hours.

133 Welding. Arc welding, acetylene welding and cutting. Laboratory: 6 hours. Credit: 3 semester hours.

233 Advanced Metallurgy. A study of the effects of heat on the exotic metals. Specific applications of metals is also covered. A study of corrosion, machining, and foundry operations and materials testing is included in the course of study. Prerequisite: WLD 235. Class: 3 hours. Credit: 3 semester hours.

RELATED ARTS DEPARTMENT

Beryl R. McKinnerney, Department Head

Mid-Management
Basic Communications,
Mathematics, and Job Relations

MID-MANAGEMENT

Instructors: James D. Spencer, David R. Nelson, and Kevin B. Cooney.

Mid-Management is a program in business and supervisory management designed to develop the fundamental skills, knowledge, attitudes, and experiences which will enable men and women to function in decision-making positions as supervisors or junior executives.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
MM	131	Introduction to Business	3	0	3
MM	141	Mid-Management Internship	0	15	4
MM	111	Mid-Management Seminar	1	0	1
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
TM	131	Fundamentals of Mathematics I or Mth 131 (Math. Dept.)*	3	0	3
Electives†			3	0	3
			13	15	17
Second Semester					
MM	132	Principles of Economics or Eco. 131 (Economics Dept.)*	3	0	3
MM	142	Mid-Management Internship	0	15	4
MM	112	Mid-Management Seminar	1	0	1
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
TM	134	Business Mathematics or Mth. 134 (Math. Dept.)*	3	0	3
Electives†			3	0	3
			13	15	17
Third Semester					
MM	231	Principles of Management	3	0	3
MM	241	Mid-Management Internship	0	15	4
MM	211	Mid-Management Seminar	1	0	1
BDP	131	Elementary Accounting	3	0	3
JR	232	Human Relations or Psy. 131 (Psy. Dept.)*	3	0	3
Electives†			3	0	3
			13	15	17

Fourth Semester

MM	232	Personnel Management	3	0	3
MM	242	Mid-Management Internship	0	15	4
MM	212	Mid-Management Seminar	1	0	1
BC	232	Public Speaking or Spc. 131 (Speech Dept.)	3	0	3
MM	233	Fundamentals of Supervision or BA 331 Business Law (B.A. Dept.)*	3	0	3
Electives†			3	0	3
			13	15	17

*Students who take these courses must meet the general admission requirements of the institution.
†By approval

Suggested Technical Arts electives: BDP 132, BDP 141, TM 133, BDP 142, BDP 144, BC 231, MM 235, MM 236, MM 237, MM 133, RES 121, RES 122, RES 221, RES 228.

Suggested Academic electives in other Schools: SS 123, SS 231, SS 341, BA 332, BA 334.

Mid-Management (MM)

111, 112, 211, 212 Mid-Management Seminar. A one-hour seminar is held in conjunction with the internship. Class: 1 hour. Credit: 1 semester hour.

131 Introduction to Business. Survey of the functional areas of business and their interrelationships. Economics of industry; ownership and organization; marketing; production; personnel; finance; business controls. Class: 3 hours. Credit: 3 semester hours.

132 Principles of Economics. Introduction to economic principles, emphasizes monetary theory, fluctuations and growth, public finance, current economic problems, and their effects on business development. Class: 3 hours. Credit: 3 semester hours.

133 Principles of Selling. Precepts of effective selling in the American economy. Sales process; prospecting; presentation; objectives; close. Class: 3 hours. Credit: 3 semester hours.

141, 142, 241, 242 Mid-Management Internship. The student who plans to earn a degree in Mid-Management must have at least 15 hours per week of approved supervised employment toward his career plan. Laboratory: 15 hours. Credit: 4 semester hours.

231 Principles of Management. A general theory of management presented within the framework of the traditional managerial functions. A basic course for the study of more advanced and specialized aspects of business administration. Class: 3 hours. Credit: 3 semester hours.

232 Personnel Management. A behavioral approach to the management of human resources in business enterprises. The fundamentals of human relations and organizational behavior will be used to structure an understanding of the managerial problems of recruitment, selection, training promotion, and termination of personnel. Supervision of the work force will be considered in relation to theories of motivation, communication, and leadership. Class: 3 hours. Credit: 3 semester hours.

233 Fundamentals of Supervision. Methods and techniques of supervision; included are basic skills for the beginning supervisor as well as new ideas and broader concepts for the more experienced. Topics included are new employees, interviewing, job methods, training, safety, human relations, grievances, motivation, and discipline. Class: 3 hours. Credit: 3 semester hours.

235 Principles of Accounting. Special attention is given the financial statements; cash and receivable; fixed assets; pre-paid expenses; liabilities; capital stock and related owners' equity; manufacturing accounting; installment sales; branch accounts. Prerequisite: BPR 131. Class: 3 hours. Credit: 3 semester hours.

236 Business Law. Principles of law which form the legal framework for business activity, applicable statutes, contracts, agency. Class: 3 hours. Credit: 3 semester hours.

237 Retailing. The nature and functions of retailing in the marketing structure. Development; organization; methods; policies of operation; problems. Class: 3 hours. Credit: 3 semester hours.

BASIC COMMUNICATIONS, MATHEMATICS, AND JOB RELATIONS

Instructors: William H. Hartford, Joe I. Juarez, Jerry B. Moseley, Beryl R. McKinnerney, Walter W. Turman, and Nicholas V. Lampson.

These courses are designed to relate to and complement the various programs offered in the School of Technical Arts. The objectives are to develop student competence in the areas of reading, applied grammar, and public speaking; to develop student competence in applied mathematics; and to develop student understanding of job and human relations.

Basic Communications (BC)

131 Basic Communications. The objectives of this course are to develop student competence in speaking and writing and to increase student competence in the use of the Library for research in his major field. Class: 3 hours. Credit: 3 semester hours.

132 Business Communications. The preparation of specifications, inventories, orders for supplies, tools and equipment, and the basic elements of business letters and report writing through the use of practice letters and case studies. Class: 3 hours. Credit: 3 semester hours.

135 Developmental Reading for University Students. This course is designed to help students improve their reading skills, vocabulary, and study skills. Individualized instruction is provided to help the students achieve these skills. Class: 3 hours. Credit: 3 semester hours.

231 Technical Writing. A study of the techniques of technical writing and its application to the individual student's major field. Prerequisite: Students must have taken BC 131 and 132 or its academic equivalent. Class: 3 hours. Credit: 3 semester hours.

232 Public Speaking. An analysis of three basic types of public speaking; to inform, to entertain, and to persuade. The student will be given basic instruction in techniques and opportunities to practice these techniques. Class: 3 hours. Credit: 3 semester hours.

Mathematics (TM)

111 Slide Rule. Slide rule operation; use of certain special scales; and application. Class: 1 hour. Credit: 1 semester hour.

131 Fundamentals of Mathematics I. Review and application of the fundamentals of mathematics. Fractions, decimals, percent, ratio, and proportion, weights, and measures, introduction to algebra. Class: 3 hours. Credit: 3 semester hours.

132 Fundamentals of Mathematics II. Introduction to algebra, polynomials, exponents, powers and roots, solutions of linear and quadratic equations, introduction to trigonometry. Prerequisite: TM 131 or the equivalent. Class: 3 hours. Credit: 3 semester hours.

133 Applied Trigonometry. Introduction to trigonometry, trigonometric functions, use of trig tables, relations between trigonometric functions, solutions of the right triangle, radian measure, periodic functions, vectors and phasors, and polar coordinates. Prerequisite: TM 132 or the equivalent. Class: 3 hours. Credit: 3 semester hours.

134 Business Mathematics. A comprehensive course in basic business mathematics. Presenting work in interest, payrolls, taxes, financial statements, and special problems for the mid-manager. Prerequisite: TM 131 or the equivalent. Class: 3 hours. Credit: 3 semester hours.

231 Applied Geometry. Introduction to geometry, areas of polygons, triangles, circles, prisms, cylinders, pyramids, cones, frustrums, spheres, and special solids. Prerequisite: TM 132 or the equivalent. Class: 3 hours. Credit: 3 semester hours.

232 Industrial Mathematics. Introduction to trigonometry; logarithms; slide rules; strength of materials; work and power problems; and speed ratios of pulleys and gear. Prerequisite: TM 231. Class: 3 hours. Credit: 3 semester hours.

Job Relations (JR)

231 Job Relations. The purpose of this course is to present and analyze the roles of the worker and management. Included in the course will be a presentation of labor-management reactions, the evolution and growth of the American labor movement, the development and structure of American business, communicative channels, state and federal legislation that affects the worker and management, and personnel problems encountered in association with employers and employees. Class: 3 hours. Credit: 3 semester hours.

232 Human Relations. The purpose of this course is to survey the social sciences that help explain human behavior and motivation. This course will include such topics as: maturation, deviant behavior, cultural and social problems, and interpersonal relationships in the job situation. These topics are designed to help individuals better understand themselves and society. Class: 3 hours. Credit: 3 semester hours.

TECHNICAL DEPARTMENT

R. J. Lawrence, Department Head

Business Data Processing
Drafting Technology
Industrial Electricity and
Electronics Technology
Police Science

BUSINESS DATA PROCESSING

Instructors: Allen G. Melton, Harry L. Williams

The objective of this course of study is to prepare the student for a career in computer programming within the field of Business Data Processing. Each Business Data Processing student will be assisted in the preparation of a program of study that combines the proper balance of programming theory and application with supervised operation of Lamar's modern high-speed computer. While this program has no admission restrictions, students are advised to examine their aptitude in this field before enrolling.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
BDP	131	Elementary Accounting or Acc. 231 (Accounting Dept.)*	3	0	3
BDP	141	Introduction to Business Data Processing	3	2	4
BDP	142	FORTRAN	3	2	4
TM	132	Fundamentals of Mathematics II or Mth. 131 (Math. Dept.)*	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*†	3	0	3
			15	4	17
Second Semester					
BDP	132	Elementary Cost Accounting or ACC. 232 (Accounting Dept.)*	3	0	3
BDP	143	Compass	3	2	4
BDP	144	COBOL I	3	2	4
		Mathematics† or Mth. 132 (Math Dept.)*	3	0	3
BC	132	Business Communication or Eng. Comp. (Eng. Dept.)*†	3	0	3
			15	4	17
Third Semester					
BDP	231	System Design	3	0	3
BDP	232	RPG	3	0	3
BDP	241	COBOL II	3	2	4
BDP	242	Operating Systems	3	2	4
Electives†			3	0	3
			15	4	17

Fourth Semester

BDP	243	Advanced FORTRAN	3	2	4
BDP	244	Computer Business Applications	3	2	4
BDP	235	Seminar	3	0	3
Electives†			6	0	6
			15	4	17

*Students who take these courses must meet the general admission requirements of the institution.
†By approval

Suggested Technical Arts electives: JR 231, JR 232, MM 131, MM 132, MM 133, MM 231, MM 232, MM 233, TM 133, TM 134, TM 231, BC 231, BC 232.

Suggested electives in other schools: BA 4317, PSY 131, SOC 131, PHL 131, ANT 231, SPC 121, MTH 135, MTH 136.

Business Data Processing (BDP)

131 Elementary Accounting. Double-entry accounting practices and procedures applied to special journals, working papers, subsidiary records, and the preparation of financial statements for a sole proprietorship with an introduction to partnerships. Class: 3 hours. Credit: 3 semester hours.

132 Elementary Cost Accounting. Accounting for material, labor, and overhead under job cost, process cost, and standard cost systems. Prerequisite: BDP 131 or consent of the instructor. Class: 3 hours. Credit: 3 semester hours.

141 Introduction to Business Data Processing. A survey of data processing from its beginning. Introduction to internal data representation, file concepts, record layouts, unit record equipment, and an overview of the programming languages to be encountered in later courses. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

142 FORTRAN. A study of the FORTRAN programming language. Progressive techniques are developed through problem definition, flowcharting, coding, documentation, and execution. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

143 Compass. An introduction to the Compass language using (1) computer registers, (2) opcode interpretation/execution, and (3) assembled program structure. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

144 COBOL I. A study of the COBOL programming language. Progressive techniques are developed through problem definition, flowcharting, coding documentation, and program execution. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

231 System Design. Fundamentals of system design analysis and documentation. Problems in designing, analyzing, changing and existing system, and implementation. Class: 3 hours. Credit: 3 semester hours.

232 RPG. A study of the RPG language. Progressive techniques are developed through problem definition, flowcharting, and coding. Class: 3 hours. Credit: 3 semester hours.

235 Seminar. A seminar class which promotes advanced study in programming. Students work on special projects which increase their skill in writing and correcting programs. Prerequisite: Consent of instructor. Class: 3 hours. Credit: 3 semester hours.

241 COBOL II. A continuation of BDP 144 with emphasis on table handling and disk file processing. Prerequisite: BDP 144. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

242 Operating Systems. A study of operating systems and their use in third generation computers. Utilities, sorts, and merges will also be covered. Prerequisite: Consent of the instructor. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

243 Advanced FORTRAN The application of FORTRAN to business and numerical problems. Prerequisite: BDP 142. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

244 Computer Business Applications. Defining problems for business application and programming the solutions using primarily the COBOL language. Prerequisite: BDP 144 and 241. Class: 3 hours. Laboratory: 2 hours. Credit: 4 semester hours.

DRAFTING TECHNOLOGY

Instructors: Ralph K. Mock, Myron M. Myrick, Donald S. Hart, Iris S. Droddy, Tom M. Christian.

This program is designed to provide basic technical information required for entry into the occupation of drafting. Engineering draftsmen prepare precise drawings and specifications from sketches, field notes, and other information furnished by an engineer or designer. The majority of draftsmen specialize in some particular field of work such as piping, structural, architectural, or machine manufacturing.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
DFT	131	Drafting Instruments	3	0	3
DFT	132	Fundamentals of Drafting	3	0	3
DFT	136	Basic Drafting Laboratory I	0	6	3
DFT	137	Basic Drafting Laboratory II	0	6	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*†	3	0	3
TM	132	Fundamentals of Mathematics II or Mth. 134 (Math. Dept.)*	3	0	3
			12	12	18
Second Semester					
DFT	134	Architecture Drafting Techniques	3	0	3
DFT	135	Architecture Drafting Techniques	3	0	3
DFT	138	Architectural Drafting Laboratory I	0	6	3
DFT	139	Architectural Drafting Laboratory II	0	6	3
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*†	3	0	3
TM	133	Applied Trigonometry or Mth. 133 Anal. Trig. (Math. Dept.)*	3	0	3
			12	12	18
Third Semester					
DFT	231	A.S.M. Standards, Pipe and Fitting Designs	3	0	3
DFT	232	Process Pipe Drafting	3	0	3
DFT	236	Systems Drafting Laboratory I	0	6	3
DFT	237	Systems Drafting Laboratory II	0	6	3
DFT	230	Smoley's Fundamentals	3	0	3
JR	231	Job Relations	3	0	3
			12	12	18

Fourth Semester

DFT	234	A.I.S.C. Specifications and Standards	3	0	3
DFT	235	Structural Design	3	0	3
DFT	238	Structural Design Laboratory I	0	6	3
DFT	239	Structural Design Laboratory II	0	6	3
DFT	233	Application of Smoley's Tables	3	0	3
Elective†			3	0	3
			12	12	18

*Students who take these courses must meet the general admission requirements of the institution.
†By approval

Suggested Technical Arts electives: DFT 261, MM 131, MM 132, MM 133, MM 231, MM 232, MM 233, BC 231, BC 232, JR 232, MT 133, IEE 133, DFT 1311.

Drafting Technology (DFT)

131 Drafting Instruments. The proper use of all drafting instruments, the construction of freehand and mechanical lettering, dimensioning, multiview projection, and geometrical construction. Class: 3 hours. Credit: 3 semester hours.

132 Fundamentals of Drafting. Instruments and materials of the professional draftsman. The course will include geometric constructions, orthographic projections, sections, conventions, various methods of pictorial drawing and other technology as required in the profession. Class: 3 hours. Credit: 3 semester hours.

134 Architecture Drafting Techniques. Architecture, covering FHA specifications, drafting techniques, rendering techniques, elevations, building codes, architectural styles, and history. Prerequisite: DFT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

135 Architecture Drafting Techniques. Architecture drafting, floor plans, sectional views, electrical plans, theory of design, cost analysis, plumbing, specification and pictorial drawings. Prerequisite: DFT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

136 Basic Drafting Laboratory I. This is the first in a series of four courses in the use of drafting instruments, freehand and mechanical lettering, conventional signs and symbols, orthographic projection and pictorial drawing. This is a comprehensive laboratory course in basic drafting procedures and skills and is planned as a preparation for the three succeeding courses which will provide practice in the skills required in specialized types of drafting. Laboratory: 6 hours. Credit: 3 semester hours.

137 Basic Drafting Laboratory II. This course is a continuation of DFT 136. Laboratory: 6 hours. Credit: 3 semester hours.

138 Architectural Drafting Laboratory I. Drafting of plans for construction in wood, metals and masonry. The course will include foundations, floor and roof plans, window and door sections, and other details of construction. Prerequisite: DFT 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

139 Architectural Drafting Laboratory II. This is a continuation of DFT 138. Prerequisite: DFT 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

230 Smoley's Fundamentals. Introduction and use of Smoley's Tables by the professional draftsman. Prerequisite: TM 133. Class: 3 hours. Credit: 3 semester hours.

231 A.S.M. Standards, Pipe and Fitting Designs. A study of pipe and fittings, designs, symbols, and specifications, sizing process lines and process symbols. Drafting of flow diagrams, vessels, heat exchangers, pumps, instruments, compressors, and mechanical equipment. Prerequisite: DFT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

232 Process Pipe Drafting. Process pipe drafting covering nomenclature, plans, elevations, details, and process equipment. Prerequisite: DFT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

233 Application of Smoley's Tables. Use and application of Smoley's Tables by the professional structural draftsman. Prerequisite: DFT 230. Class: 3 hours. Credit: 3 semester hours.

234 A.I.S.C. Specifications and Standards. A.I.S.C. specifications and standards, basic strength of materials, structural theory and data. Detailing structure members and connections. Prerequisite: DFT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

235 Structural Design. Structural steel, completion of column details, brace details, skewed connections, moment connections, seated connections, erection drawings, stair, and miscellaneous details, design using A.I.S.C. standards of beams and coils working with kip loads. Prerequisite: DFT 131 and 132. Class: 3 hours. Credit: 3 semester hours.

236 Systems Drafting Laboratory I. A study of pipe and fittings, designs, symbols, and specifications, sizing process lines and process symbols. Drafting of flow diagrams, vessels, heat exchangers, pumps, instruments, compressors, and mechanical equipment. Prerequisite: DFT 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

237 Systems Drafting Laboratory II. This course is a continuation of DFT 236. Prerequisite: DFT 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

238 Structural Design Laboratory I. Drafting of plans, sections, and details and A.I.S.C. specifications for industrial structures which will include structural steel, pipe and concrete reinforcing rods. Prerequisite: DFT 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

239 Structural Design Laboratory II. This course is a continuation of DFT 238. Prerequisite: DFT 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

133 Introduction to Drafting. A course designed to develop illustrative and graphic communication skills, with emphasis on presenting information effectively by using diagrams, drawings, prints, sketches, graphs, and charts drawn freehand and employing commonly available drawing aids such as straight edges, squared and graph paper, and similar aids. Class: 1 hour. Laboratory: 4 hours. Credit: 3 semester hours.

261 Design Project Seminar. This course designed to stimulate and develop the design drawing skills of the student. The course will include one major design project which includes a scale model and complete set of working drawings, selected by the student and approved by the instructor. Prerequisite: consent of instructor. Class: 1 hour. Laboratory: 10 hours. Credit: 6 semester hours.

1311 Blueprint Reading. A study of lines, views, symbols and dimensions involved in reading blueprint and shop sketches. Practice in making freehand sketches of simple objects. Class: 3 hours. Credit: 3 semester hours.

INDUSTRIAL ELECTRICITY AND ELECTRONICS TECHNOLOGY

Instructors: Robert J. Lawrence, Lenox L. Sigler, Gearold R. Coppins, Tarlton J. Daigle, Marvin H. Hogan, Jerry L. Wilson, Eugene G. Broussard.

This program is designed to provide the student with an opportunity to develop the necessary skills involved in the repair and maintenance of industrial electrical and electronics equipment.

The objective of this program is to develop an understanding of the underlying theories, technical information, safety factors, and related occupational information to assure sound judgments and proper procedures needed for an electronics technician trainee. The graduate will be prepared to enter one of the many specialized fields associated with the electronics trade.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab. Hours	Semester Hours
First Semester					
IEE	131	Basic Laws and Theories	3	0	3
IEE	132	The Application of Kirchhoff's Laws	3	0	3
IEE	136	Basic Laboratory	0	6	3
IEE	137	Equipment Familiarization	0	6	3
TM	111	Slide Rule	1	0	1
TM	132	Fundamentals of Mathematics II or Mth. 134 (Math. Dept.)*	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			13	12	19
Second Semester					
IEE	134	Alternating Voltage and Current Fundamentals	3	0	3
IEE	135	Alternating Current Circuits	3	0	3
IEE	138	Laboratory Analysis	0	6	3
IEE	139	Reactive Experiments	0	6	3
TM	133	Applied Trigonometry or Mth. 133 (Math. Dept.)*	3	0	3
BC	132	Business Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
			12	12	18
Third Semester					
IEE	231	The Theory and Operation of Vacuum Tubes and Associated Circuits	3	0	3
IEE	232	Radio Frequency Circuits as Applied to Receiving Apparatus	3	0	3
IEE	236	Power Supplies	0	6	3
IEE	237	Amplifiers	0	6	3
IEE	230	Electronic Mathematics	3	0	3
JR	231	Job Relations	3	0	3
			12	12	18

Fourth Semester

IEE	234	The Theory and Operation of Modulation and Transmitters	3	0	3
IEE	235	The Principles of Receivers	3	0	3
IEE	238	Solid State Devices	0	6	3
IEE	239	Integrated Circuitry	0	6	3
IEE	233	Logarithms	3	0	3
Electives†			3	0	3
			12	12	18

*Students who take these courses must meet the general admission requirements of the institution.
†By approval

Suggested Technical Arts electives: DFT 133, MM 131, MM 132, MM 133, MM 231, MM 232, MM 233, BC 231. BC 232, JR 232, MT 133, WLD 133

Industrial Electricity and Electronics Technology (IEE)

131 Basic Laws and Theories. Fundamentals of electricity, Ohm's law and power, simple series and parallel d-c circuits, and combination circuits. Class: 3 hours. Credit: 3 semester hours.

132 The Application of Kirchhoff's Laws. D-C meters, conductors, insulators, and resistors, magnetism and electromagnetic induction. Class: 3 hours. Credit: 3 semester hours.

133 Basic Electricity. Introduction to the field of electricity and electronics. Class: 3 hours. Credit: 3 semester hours.

134 Alternating Voltage and Current Fundamentals. Inductance, inductive reactance, and inductive circuits, capacitance, capacitive reactance, and capacitive circuits. Prerequisite: IEE 131 and 132. Class: 3 hours. Credit: 3 semester hours.

135 Alternating Current Circuits. Series and parallel resonance, fundamental principles and characteristics of electron tubes and transistors. Prerequisite: IEE 131 and 132. Class: 3 hours. Credit: 3 semester hours.

136 Basic Laboratory. Tools, materials, and basic shop skills of the electrical trade; lighting and signal wiring, electronic components and symbols. Laboratory: 6 hours. Credit: 3 semester hours.

137 Equipment Familiarization. Familiarization with hand tools used in electronics, VTVM and milliammeter familiarization, fundamental DC circuits and analysis by voltage, current, and resistance measurements. Laboratory: 6 hours. Credit: 3 semester hours.

138 Laboratory Analysis. Familiarization with the oscilloscope, and the audio and RF signal generators; construction, experimentation, and analysis of AC circuits. Prerequisite: IEE 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

139 Reactive Experiments. Experimentation with circuits containing inductance, capacitance, and resistance; AC series and parallel resonant circuits. Prerequisite: 136 and 137. Laboratory: 6 hours. Credit: 3 semester hours.

230 Electronic Mathematics. Application of electrical theory of alternating current circuitry. Prerequisite: TM 133 and IEE 135. Class: 3 hours. Credit: 3 semester hours.

231 The Theory and Operation of Vacuum Tubes and Associated Circuits. Half and full wave rectification, power supply regulation and protection, transistor theory and configurations, P-B junction devices, silicon controlled rectifiers varistors, thermistors, integrated circuits, audio amplifier circuits, and their application. Prerequisite: IEE 134 and 135. Class: 3 hours. Credit: 3 semester hours.

232 Radio Frequency Circuits as Applied to Receiving Apparatus. The tuned R.F. amplifier, oscillators and their applications, Hartley, Colpitts, Pierce and Armstrong circuits. Prerequisite: IEE 134 and 135. Class: 3 hours. Credit: 3 semester hours.

233 Logarithms. The common system of logs, operation with logarithms, exponential and logarithmic equations, application to RL and RC circuits, application to amplifiers, and application to transmission lines. Prerequisite: IEE 230. Class: 3 hours. Credit: 3 semester hours.

234 The Theory and Operation of Modulation and Transmitters. Transmitter circuits and resonance tuning, antennas, transmission lines, wave guides and parabolic arrays. Prerequisite: IEE 231 and 232. Class: 3 hours. Credit: 3 semester hours.

235 The Principles of Receivers. TRF and regenerative types, super-heterodyne receivers, mixers, detector circuits, and volume controls. Industrial electronics and the gaseous rectifier, thyratrons, photo-electric devices, syncro-mechanisms and motor control. Prerequisite: IEE 231 and 232. Class: 3 hours. Credit: 3 semester hours.

236 Power Supplies. Experimentation and analysis of power supplies, triode vacuum tube characteristics, and the triode as a DC and AC amplifier. Prerequisite: IEE 138 and 139. Laboratory: 6 hours. Credit: 3 semester hours.

237 Amplifiers. Audio, voltage and power amplifiers, transistor familiarization, and basic transistor circuit arrangements. Prerequisite: IEE 138 and 139. Laboratory: 6 hours. Credit: 3 semester hours.

238 Solid State Devices. Laboratory experiments in the construction of circuitry using solid state devices. AF and RF amplifiers and oscillators using transistors, diodes and descrete components. Prerequisite: IEE 236 and 237. Laboratory: 6 hours. Credit: 3 semester hours.

239 Integrated Circuitry. Experimentation with IC's as linear amplifiers, logic (RTL) circuits, nor logic, ramp function generators, and various trigger circuits. Prerequisite: IEE 236 and 237. Laboratory: 6 hours. Credit: 3 semester hours.

POLICE SCIENCE

Instructor: Edward L. Parker and John C. West, Jr.

The objective of the Police Science program is to aid the student to achieve a level of proficiency of Law Enforcement sufficient to enable him to be a valuable member to any law enforcement agency. The program is designed to produce a well-rounded individual capable of adapting to the objectives and methods of the employing agency and to assist in-service students in obtaining promotions within their respective departments. A student who may eventually seek a four-year degree is advised to register as a Plan II student.

A graduate of this two-year instructional program is awarded the Associate of Applied Science degree.

Program of Study

			Lecture Hours	Lab Hours	Semester Hours
First Semester					
PS	131	Police Organization and Administration	3	0	3
PS	132	Introduction to Law Enforcement	3	0	3
BC	131	Basic Communications or Eng. Comp. (Eng. Dept.)*	3	0	3
TM	131	Fundamentals of Math I or Mth 131 (Math. Dept.)*	3	0	3
Elective†			3	0	3
			15	0	15
Second Semester					
PS	133	Police-Community Relations	3	0	3
PS	134	Police Role in Delinquency	3	0	3
PS	136	Police Operations	3	0	3
BC	132	Business Communication or Eng. Comp. (Eng. Dept.)*	3	0	3
MM	231	Principles of Management or Psy. 131 (Psy. Dept.)*	3	0	3
			15	0	15
Third Semester					
PS	231	Criminal Law	3	0	3
PS	237	Introduction to Criminal Procedures and Evidence	3	0	3
JR	232	Human Relations or Gov. 231 (Gov. Dept.)*	3	0	3
BC	232	Public Speaking or Spc. 131 (Speech Dept.)*	3	0	3
Elective†			3	0	3
			15	0	15

Fourth Semester

PS	232	Criminal Investigation	3	0	3
PS	233	Law and Society	3	0	3
PS	234	Legal Aspects of Law Enforcement	3	0	3
MM	233	Fundamentals of Supervision or Gov. 232 (Gov. Dept.)*	3	0	3
Elective†			3	0	3
			15	0	15

*Students who take these courses must meet the general admission requirements of the institution.
†By approval

Suggested Technical Arts electives: PS 111, PS 135, PS 235, PS 238, PS 245, PS 239, PS 246, MM 132, MM 232, BC 231, JR 231, TM 132, TM 231, TM 134, DFT 133.

Suggested electives in other Schools: SPC 132, GOV 131, GOV 231, PSY 231, SOC 132, SOC 230, SOC 231, SOC 232, SOC 333, SOC 336, SOC 338, SOC 339, SOC 437, HIS 134, HIS 231.

POLICE SCIENCE (PS)

111 Police Report Writing. The proper means and methods to prepare a narrative report and the correct procedures to be used in testifying before a judicial proceeding. Class: 1 hour. Credit: 1 semester hour.

131 Police Organization and Administration. The principles of organization, administration and functioning of police departments are studied. This includes personnel policies, operating division policies and command of the department as a whole. Class: 3 hours. Credit: 3 semester hours.

132 Introduction to Law Enforcement. The philosophy and history of law enforcement is studied. It includes: a survey of police problems and crimes; organization and jurisdiction of local, state and federal enforcement agencies and a survey of professional qualifications and opportunities. Class: 3 hours. Credit: 3 semester hours.

133 Police-Community Relations. The interrelationship of the law enforcement agencies of the community is covered. A study of situations and the identification of positive community action programs is included. Class: 3 hours. Credit: 3 semester hours.

134 Police Role in Delinquency. Juvenile criminal behavior is studied in order to provide an insight into casual factors, precipitating forces, and opportunities for the commission of criminal or delinquent acts. The techniques, responsibilities and capabilities of police organization in the area of delinquency prevention will be developed. Class: 3 hours. Credit: 3 semester hours.

135 Traffic Planning, Management, and Engineering. The student examines police responsibilities in traffic planning and investigation. Identifies police policies and procedures in education, engineering, and enforcement responsibilities. An analytical study of special traffic problems, motor vehicle laws and accident investigation techniques is conducted. Class: 3 hours. Credit: 3 semester hours.

136 Police Operations. Line activities of law enforcement agencies with emphasis on the patrol function and the prevention of crime; includes traffic investigation, juvenile, vice, and other specialized operational units. Class: 3 hours. Credit: 3 semester hours.

231 Criminal Law. This covers a brief history and philosophy of modern law which includes the structure, definition and application of commonly used Penal Statutes and leading case laws. It also includes a review of the elements of crimes, and other legal concepts as they affect the law of crimes. Class: 3 hours. Credit: 3 semester hours.

232 Criminal Investigation. Theories and concepts of the investigator's role in modern criminal investigation are studied. Basic skills necessary in conducting an investigation, developing sources of information, the collection and preservation of evidence and preparation of reports are developed. Class: 3 hours. Credit: 3 semester hours.

233 Law and Society. Law as an instrument of social control; functions, sources and development of the law; and machinery of law as a part of society. Class: 3 hours. Credit: 3 semester hours.

234 Legal Aspects of Law Enforcement. Legal problems which confront the police officer with particular emphasis on the legal controls over police investigative and enforcement techniques; arrest, search and seizure; identification procedures; statements and confessions. Prerequisite: PS 231 or 237. Class: 3 hours. Credit: 3 semester hours.

235 Criminology. Crime as a form of deviant behavior; nature and extent of crime; past and present theories; evaluation of prevention, control and treatment programs. Class: 3 hours. Credit: 3 semester hours.

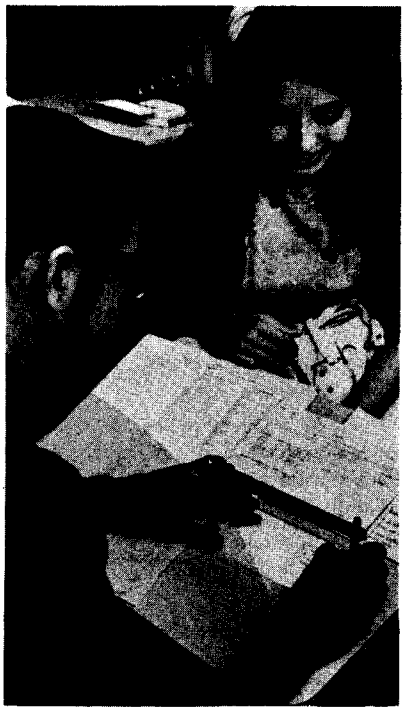
237 Introduction to Criminal Procedures and Evidence. The student examines the rules governing the admissibility of evidence as they affect the law enforcement officer in the administration of criminal justice. This course includes a study of the rules of evidence, kinds and degrees of evidence and their application in the legal processes from arrest, through probation and parole procedures to final disposition of the case. Class: 3 hours. Credit: 3 semester hours.

238 Introduction to Criminalistics. Physical evidence, collection, identification preservation and transportation crime laboratory capability and limitations, examinations of physical evidence to the extent supported by existing or available facilities. Prerequisite: PS 232. Class: 3 hours. Credit: 3 semester hours.

239 Narcotics and Vice Control. The history and casual factors of vice-type crimes are covered. This includes administrative structure and policy formulations that influence the detection, repression, and control of gambling, prostitution, sex offenders, liquor and narcotic violations. Class: 3 hours. Credit: 3 semester hours.

245 Police Internship. A work experience to increase student understanding of law enforcement administration and operation; the internship is initiated by the school in an agency, and both college and agency supervise and direct the student's program. Class: 3 hours. Credit: 4 semester hours.

246 Police Internship. A work experience to increase student understanding of law enforcement administration and operation; the internship is initiated by the school in an agency, and both college and agency supervise and direct the student's program. Class: 3 hours. Credit: 4 semester hours.



ADULT TRAINING PROGRAMS

Norman E. Lowrey, Supervisor

Industrial Supervision
Law Enforcement Training
Nurse Assistant
Plant Maintenance and Operations
Real Estate

INDUSTRIAL SUPERVISION

This series of courses is planned for business and industry supervisory personnel. Employment in business or industry in a supervisory or leadership position is a prerequisite to registration in supervisory courses. The content of the program offered covers the entire range of supervisory responsibilities. Each class meeting is carefully planned to be of maximum usefulness to the student's job assignment.

A person who successfully completes eighteen semester hours from the following list of courses is awarded a Certificate of Completion in Industrial Supervision.

Industrial Supervision (IS)

1311 Supervisory Leadership. The incident process as used in this course provides experience in handling case problems and in analyzing real supervisory situations. Motivation of employees, development of leadership qualities, utilization of authority, and handling of labor relations problems are studied. Class: 3 hours. Credit: 3 semester hours.

1312 Industrial Economics. The function of tools, workers, management, and investors in the American industrial system. The course also includes discussions of the place of government in the economy, the significance of profits, cost, wages, and money and a study of personal financial planning. Class: 3 hours. Credit: 3 semester hours.

1313 Industrial Relations. A survey of the industrial relations functions in an industrial organization. Topics include employment, merit rating, job placement, public relations, counseling and training. Class: 3 hours. Credit: 3 semester hours.

1314 Supervisory Methods in Municipal Administration. Modern methods and techniques of supervision within the various departments, divisions, and offices of city government. Class: 3 hours. Credit: 3 semester hours.

1315 Cost Reduction. Methods for carrying out a comprehensive, continuing cost reduction and control program including how to get all levels of supervisory management solidly behind the cost reduction effort and how to get supervisors to think of cost control as an integral part of the overall job, rather than a short-term project. Class: 3 hours. Credit: 3 semester hours.

1316 Safety for Supervisors. Safety costs, cause of accidents, the function of safety inspections, the elimination of specific hazards, fire prevention, investigation of accidents and methods for minimizing their frequency and severity. Class: 3 hours. Credit: 3 semester hours.

1317 Labor Law. The Taft-Hartley and other federal and state laws in the field of labor-management relations and how they affect the foreman and supervisor in industry and business. Class: 3 hours. Credit: 3 semester hours.

1318 Industrial Psychology. Methods of applying practical psychology to the handling of men; the use of testing methods; consideration of such factors as morale, group attitudes, motivation, frustration, and fatigue; and application of psychological studies to human behavior on the job. Class: 3 hours. Credit: 3 semester hours.

1319 Wages and Salary Administration. Problems involved in wage and salary administration including labor legislation, wage criteria, wage payment plan and job evaluation. Class: 3 hours. Credit: 3 semester hours.

1320 Job Evaluation. Job evaluation systems and techniques. Problems of installing a program of job evaluation. Actual cases are studied. Class: 3 hours. Credit: 3 semester hours.

1321 Management Supervision. Methods and techniques of supervision from the executive viewpoint. Topics included are organization and management, control of waste, manpower, machines and material, getting cooperation, communications, human relations, controlling accidents and selected management problems. Class: 3 hours. Credit: 3 semester hours.

1322 Labor Relations. Company policy, labor history, legislation and labor unions, the labor contract, grievances and arbitration are included in this course. Class: 3 hours. Credit: 3 semesters.

1323 Industrial Organization and Management. An advanced course in management. The course presents management functions in detail, so that inter-relationships of functions of the organization are revealed. Class: 3 hours. Credit: 3 semester hours.

1324 Industrial Sociology. A study of the social structure of modern large-scale industry and its relation to society. Class: 3 hours. Credit: 3 semester hours.

1325 Industrial Communications I. Basic information and techniques for effectively communicating with employees, management, customers and the public. Some of the topics covered in the course are logical and creative thinking, making a speech, dictating, and telephoning. Class: 3 hours. Credit: 3 semester hours.

1326 Industrial Communications II. Basic information and techniques for effectively communicating with employees, management, customers and the public through letter and report writing. Class: 3 hours. Credit: 3 semester hours.

LAW ENFORCEMENT TRAINING

Instructor: Edward L. Parker.

The objective of this program is to provide basic law enforcement training to meet the certification requirements for police officers as set by the Texas Commission on Law Enforcement Officers Standards and Education. The program consists of six-weeks of intensified training. It usually is offered four times each year.

Admission to this program is limited to officers and reserve officers who are currently associated with law enforcement agencies.

The person who successfully completes this instructional program (nine semester hours) is awarded a Certificate of Completion in Law Enforcement by the university, and the Basic Certificate from the Texas Commission on Law Enforcement Officers Standards and Education.

Law Enforcement (LE)

1311 Introduction to Law Enforcement. A study of: police service as a career; community relations; police ethics; court appearance; laws of arrest; search and seizure procedures; rules of evidence; case preparation; and criminal law. Class: 48 hours total. Credit: 3 semester hours.

1611 Law Enforcement Procedures. A study of: patrol methods and procedures; mechanics of arrest; crowd control; defensive tactics; firearm training; traffic supervision; criminal investigation; and detention procedures. Class: 64 hours total. Laboratory: 128 hours. Credit: 6 semester hours.

NURSE ASSISTANT

Instructor: Betty F. Jordan.

The objective of this program is to prepare the student for the first level of bedside nursing in hospitals or nursing homes under the direction of nursing and medical staff.

Applicants interested in this program should make application through the regular channels. Applicants are not required to be high school graduates and are not required to take the Scholastic Aptitude Test.

A person who successfully completes this instructional program (six semester hours) is awarded a Certificate of Completion in Nurse Assisting.

Nurse Assistant (NA)

1311 Medical Communication. This includes developing skills of communication, observation, ethics, arithmetic review, and vocabulary of body systems. Class: 3 hours. Credit: 3 semester hours.

1312 Nursing Procedures. Developing skills and specific procedures for competent bedside nursing, including familiarization of hospital equipment. Class: 3 hours. Credit: 3 semester hours.

PLANT MAINTENANCE AND OPERATIONS

This course of study is provided for persons engaged in the maintenance and operations of the various petro-chemical plants in the area.

The objectives of this program are to reinforce the practical work skills developed by the student as a result of his work experience and to insure that he has the necessary skills to maintain a position and fulfill a vital role in area industry.

A person who successfully completes 30 semester hours of this instructional program is awarded a Certificate of Completion in Plant Maintenance and Operations.

Plant Maintenance and Operations (PM)

1311 Compressors. The application, operation and maintenance of air and gas compressors, proper installation and power requirements. Class: 3 hours. Credit: 3 semester hours.

1312 Pumps. The application, care and operation of centrifugal, rotary and reciprocating pumps and the study of direct and belt drives. Class: 3 hours. Credit: 3 semester hours.

1313 Pipefitting. Methods of fabricating pipe are studied. The use of layout tools, full-scale layout methods and practices, layout of miters and saddles and the use of the steel square in pipe layout is stressed. Class: 3 hours. Credit: 3 semester hours.

1314 Instrument Piping. A study of the piping required for pressure, flow and temperature controllers both transmitting and recording. Class: 3 hours. Credit: 3 semester hours.

1315 Pneumatic Instruments. A study of the physical and chemical laws affecting pressure and temperature measuring and recording instruments. The operation and application of instruments for controlling manufacturing processes is covered. Class: 3 hours. Credit: 3 semester hours.

1316 Control Systems. The basic control theory and methods for obtaining various control effects are studied. Practical industrial installations of control systems, controller adjustments and checking and testing procedures are stressed. Class: 3 hours. Credit: 3 semester hours.

1317 Electronic Instruments. A review of basic electricity including components and basic laws. A study is made of electron tubes, elementary electronic circuits, and some of the more generally used electronic instrument circuits. Class: 3 hours. Credit: 3 semester hours.

1318 Related Physics. A study of matter, energy, mechanics, heat and basic electrical principles as they relate to the refining and chemical processes. Class: 3 hours. Credit: 3 semester hours.

1319 Related Chemistry. A study of organic and inorganic chemistry, the safety consideration in the handling of chemicals and the physical properties of organic homologs. Class: 3 hours. Credit: 3 semester hours.

1320 Unit Operations. This course will include an investigation of fluid flow and transport, distillation, evaporation, extraction and other unit functions. Class: 3 hours. Credit: 3 semester hours.

Courses in other departments may be credited toward the Certificate of Completion in Plant Maintenance and Operations. A partial listing is as follows: TM 131, TM 132, RAC 131, RAC 132, RAC 136, RAC 137, DFT 133, DFT 230, DFT 236, DFT 237, IEE 131, IEE 132, IEE 133, IEE 136, IEE 137, WLD 133.

REAL ESTATE

This program of study is designed to prepare a student to meet the classroom requirements of the State Licensure Board for a sales and brokers license and to improve his competence in the specialized areas of real estate.

A person who successfully completes 12 semester hours from the following list of courses is awarded a Certificate of Completion in Real Estate.

Real Estate (RES)

1211 Real Estate I. Texas Realtor's Institute I. This course deals primarily with residential properties and covers the essentials of real estate brokerage. Class: 2 hours. Credit: 2 semester hours.

1221 Real Estate II. Texas Realtor's Institute Course II. This course introduces the student to tax free exchanges, marketing, construction, management, appraisal, and financing of commercial properties. Advanced sales and administration techniques and included. Class: 2 hours. Credit: 2 semester hours.

1231 Real Estate III. Texas Realtor's Institute Course III. This course provides a student with an advanced approach in the development of investment property and the establishment of a personal estate. Class: 2 hours. Credit: 2 semester hours.

1241 Real Estate Appraising I. This course introduces a student to the methods of appraising real property. Class: 2 hours. Credit: 2 semester hours.

1251 Real Estate Appraising II. This course introduces a student to appraising from the income approach to value through residual techniques. Class: 2 hours. Credit: 2 semester hours.

1261 Real Estate Finance. A study of the finances involved in real estate transactions. Class: 2 hours. Credit: 2 semester hours.

1271 Real Estate Law. A study of laws and regulations concerning real estate transactions. Class: 2 hours. Credit: 2 semester hours.

1281 Real Estate Investments. A study of investments versus speculation, capital gain, and real estate versus other areas. Class: 2 hours. Credit: 2 semester hours.

CONTINUING EDUCATION

Joseph Reho, Director, Continuing Education

James D. Spencer, Supervisor,
Vocational-Technical Continuing Education

CONTINUING EDUCATION

Continuing Education is based on the concept that education is a lifelong process; that in a world of accelerating change, education must be a continuous series of learning experiences.

Continuing Education has specific reference to education and training programs designed to serve interests and needs of the adult population. The program accepts adults of all levels of academic achievement. It seeks to provide participants with information and experiences that are useful in helping them solve their problems, achieve their educational and occupational objectives, and gain the wisdom to lead more rewarding personal lives.

Lamar University offers informal non-credit courses for adults in a variety of subjects designed to meet educational needs not readily met by conventional educational programs.

The courses are generally offered during the evening hours as a convenience to the participants. Course length varies according to the subject matter and instructional objectives. Facilities for this training may be provided by the University, or arrangements may be made to conduct training at a plant site or other location convenient for persons involved.

Students registered for non-credit courses typically represent a social, economic, educational, and ethnic cross-section of the population which the university serves. Adults who are not high school graduates may attend classes along with those who hold advanced degrees. The only admission requirement is a genuine desire to learn. Because these classes are a community service function, fees are minimal.

Non-credit continuing education at Lamar University consists of conferences, institutes, seminars, workshops, short courses, and special training courses. The instructional staff is chosen from leaders in local business and industry, Lamar's faculty, and other educational institutions. The function of the Office of Continuing Education is to provide the organizational and administrative services necessary to offer these courses.

Courses are offered upon request of a number of individuals, organizations, or industry training directors and may be designed to meet specific needs of persons requesting such instructional programs.

The Office of Continuing Education offers (in cooperation with the School of Technical Arts) the following occupationally oriented programs:

CONFERENCES AND WORKSHOPS

Conferences and workshops are usually less than a week in length and provide in-service training to employees. Conferences are designed to cover many topics concerned with a central theme. Workshops usually emphasize skill training.

Management Conference. This two-day conference is held each spring to increase the managerial competence of administrators and managers. Outstanding speakers are selected for the four sessions of the conference.

Fireman's Training School. This five-day school is conducted jointly by Lamar University and the Sabine-Neches Chiefs' Association to train firemen, employed by municipal fire departments and industrial fire departments, in the latest techniques of fire fighting.

Cummins Diesel Engine Workshop. Representatives of the Cummins Diesel Company conduct this workshop to inform interested persons about the latest improvements made in the company's engines.

Detroit Diesel Engines Workshop. Representatives of the Detroit Diesel Corporation conduct this workshop to inform persons interested in learning about the latest improvements in the various engines manufactured by their company.

Automotive Workshops. This workshop is designed to keep mechanics abreast of the latest developments in the field of automotive repair.

Surveying Workshops. These workshops are offered to satisfy the needs of roadmen, chainmen, instrumentmen, party chiefs, and persons preparing to become Registered Public Surveyors. These workshops are conducted in association with Deep East Texas Chapter of the Texas Surveyors' Association.

SHORT COURSES

Short courses are conducted for a specific period of time, usually with a single instructor meeting the class sessions. The goal of most short courses is to offer in-service training at a low cost to the employee.

A short course may be initiated when student demand is sufficiently high, or when an employer wishes to provide special intensive training for his employees. The content of the course can be designed to meet the specific needs of the students or the employer.

Blueprint Reading. This series of short courses is designed to provide instruction in the reading and interpretation of residential, commercial, and industrial construction drawing and specifications preparatory to making construction cost estimates.

Interior Design. Interior design courses consist of a basic course for salesmen, a problems course in interior decoration, and a specialty course in the drawing and presentation of drawings of proposed interior layouts.

Marine Drafting. An advanced drafting course specifically designed for persons interested in marine drafting. Enrollees in this course should have a workable knowledge of the basic drafting techniques and principles.

Medical Records. The objective of this course is to provide training in medical record keeping for physicians' offices, clinics, and hospitals.

Post-Vocational Nursing Training. This course is designed to provide advanced training to practicing LVN's. The topics covered in this course will vary to meet the needs of the students.

Building Maintenance. This series of courses deals with the problems of repairing residential and commercial structures. The topics include plumbing repairs, electrical systems, mechanical repairs, and preventative maintenance.

Industrial Safety. Industrial safety is the subject of this short course. Specific topics such as safe work practices, safety clothing, and safe attitudes are covered. Supervisors as well as hourly employees benefit from the information presented in this course.

Diesel Engines. Special topics are taught in this advanced course in Diesel Engines repair. The topics include preventive maintenance, tune-up, and repair of specific types of engines.

Refrigeration and Air Conditioning. A group of short courses covering subjects ranging from basic refrigeration theory to repair of commercial systems. Automotive air conditioning also is covered in one of the courses.

Welding. Courses are offered in basic welding to prepare workers for the shipbuilding industry. Other courses are conducted to provide advanced training in pipe welding, inert gas welding, and semi-automatic welding.

Machine Shop Practices. Courses taught by experienced instructors are offered in the field of machine shop practices. The content of the courses is adapted to the educational objective of the class.

SPECIAL TRAINING ACTIVITIES

The objective of these activities is to provide training to meet the requirements for certification or licensing by various state agencies and associations. In addition, these courses are intended to meet special training needs of businesses and industries and can be conducted at plant sites. The length of the programs vary from a few weeks to a few years.

Apprenticeship Training. Lamar University offers courses that satisfy the requirements of the various joint apprenticeship committees, the Department of Labor, and the Bureau of Apprenticeship and Training as specified in their respective standards. Courses for the following trades are presently offered: Bricklaying, Carpentry, Ironworking, Millwright, and Plumbing.

Insurance. Certificate and charter requirements of the various insurance societies are met by these courses.

Nursing Home Administration. Persons preparing to take the State Board of Licensure for Nursing Home Administrators Examination are required to have completed 200 hours of specified course work prior to taking the examination. Completion of these courses will satisfy this requirement.

Sewage Works Operations. This program consists of a group of courses designed to meet the requirements of the Texas State Department of Health for the certification of operators of sewage treatment plants.

Transportation. This program is designed to prepare candidates for Certificates of Membership in the American Society of Traffic and Transportation. Shipping and receiving procedures, traffic, and classification of freight are examples of topics covered in this program.

Water Works Operation. This program meets the requirements of the Texas State Department of Health for the certification of persons employed in water treatment plants.

OFFICERS OF ADMINISTRATION

FRANK A. THOMAS, JR., B.S., M.S., Ph.D., President
THOMAS T. SALTER, B.S., M.Ed., Ed.D., Vice-President of Extended Services
KENNETH E. SHIPPER, B.S., M.A., Ph.D., Dean, School of Technical Arts
GUS A. CARLSEN, I.E., Assistant Dean, School of Technical Arts
ANDREW J. JOHNSON, B.A., M.A., Ph.D., Vice-President of Academic Affairs
G. A. WIMBERLY, SR., B.S., Assistant to the President, Personnel Officer
H. C. GALLOWAY, JR., B.S., M.Ed., Vice-President of Finance
DAVID L. BOST, B.A., M.J., Ph.D., Vice-President of Student Affairs
GEORGE E. McLAUGHLIN, B.S., Dean of Students
NORRIS H. KELTON, B.A., M.A., Dean of Admissions and Records
OSCAR K. BAXLEY, B.B.A., Business Manager
ELMER G. RODE, B.B.A., M.Ed., Associate Dean of Admissions and Records
JOE B. THRASH, B.S., M.A., Director, Testing and Placement Center and Veterans Education
GARLAND W. LOVELACE, B.S., M.Ed., Vocational Counselor
EUGENE W. CARPENTER, B.S., Director, University Police
JESS R. DAVIS, B.B.A., B.S., M.Ed., Director, Student Financial Aids
RUSSELL DeVILLIER, Director of Public Information
R. BLAINE THOMAS, B.S., M.A., Ph.D., Director of Library Services
MRS. WILLA V. NEWTON, Senior Secretary, School of Technical Arts
JOANNE HIGGS, Secretary, School of Technical Arts

FACULTY

(Full-Time)

MRS. NINA ADKINS, Instructor I of Vocational Nursing, 1970
B.S.N., University of New Mexico
Registered Nurse, State of Texas

MRS. NORMA M. AYCOCK, Instructor II of Vocational Nursing, 1962, 1970
Registered Nurse, State of Texas

DOYLE BICE, Instructor I of Diesel Mechanics, 1969, 1970
C.C., Lamar University
Chief Engineer, U. S. Maritime Service

EMMETT S. BLACK, Instructor II of Machine Tools, 1964, 1970

EUGENE G. BROUSSARD, Instructor I of Industrial Electricity & Electronics Technology, 1969, 1970

GUS A. CARLSEN, Instructor IV of Machine Tools, Assistant Dean, School of Technical Arts, 1942, 1971
I.E., The University of Texas at Arlington

TOM M. CHRISTIAN, Instructor II of Drafting Technology, 1970
B.S., Georgia Institute of Technology

KEVIN M. COONEY, Instructor I of Related Arts, 1971
B.A., University of Saint Thomas

GEAROLD R. COPPINS, Instructor III of Industrial Electricity & Electronics Technology, 1954, 1971

JOHN W. CRAWLEY, Instructor II of Refrigeration & Air Conditioning Technology 1967, 1971

T. J. DAIGLE, Instructor III of Industrial Electricity & Electronics Technology, 1951, 1971
B.S., University of Southwestern Louisiana

MRS. IRIS S. DRODDY, Instructor I of Drafting Technology, 1970

MRS. CORNIE FLETCHER, Instructor I of Vocational Nursing, 1969, 1970
Registered Nurse, State of Texas

DONALD HART, Instructor II of Drafting Technology, 1969, 1970
B.S., M.Ed., Sam Houston State University

WILLIAM HARTFORD, Instructor III of Job Relations, 1947, 1971

MARVIN H. HOGAN, Instructor I of Industrial Electricity & Electronics Technology, 1970

MRS. DOLORES JONES, Instructor IV of Vocational Nursing, Head Department of Health Services, 1962, 1971
Registered Nurse, State of Texas

MRS. BETTY JORDAN, Instructor I of Vocational Nursing, 1971
Registered Nurse, State of Texas

JOE I. JUAREZ, Instructor II of Basic Communications, 1968, 1970
B.F.A., University of Houston
B.S., Lamar University
M.Ed., University of Houston

MRS. ANN KEEN, Instructor II of Vocational Nursing, 1958, 1971
Registered Nurse, State of Texas

NICHOLAS V. LAMPSON, Instructor I of Related Arts, 1971
B.S., Lamar University

ROBERT J. LAWRENCE, Instructor III of Industrial Electricity & Electronics Technology, Head, Technical Department, 1958, 1971

GARLAND W. LOVELACE, Vocational Counselor, 1970
B.S., Lamar University
M.Ed., Stephen F. Austin State University

NORMAN E. LOWREY, Supervisor, Adult Training Programs, 1967, 1970

SAM LUCIA, Instructor IV of Diesel Mechanics, 1954, 1970

RONALD I. MARBLE, Instructor I of Welding, 1967, 1970
C. C., Lamar University

BERYL R. McKINNERNEY, Instructor II of Mathematics, Head, Related Arts Department, 1970, 1971
B.S., Tarleton State College
M.S., Lamar University

ALLEN G. MELTON, Instructor I of Business Data Processing, 1967, 1970
B.S., Lamar University

RALPH K. MOCK, Instructor III of Drafting Technology, 1966, 1971

JERRY B. MOSELEY, Instructor I of Basic Communications, 1969, 1970
B.S., M.Ed., Lamar University

MYRON M. MYRICK, Instructor II of Drafting Technology, 1967, 1971

DAVID ROGERS NELSON, III, Instructor I of Mid-Management, 1971
B.A., Lamar University

MRS. LINDA CAROL REYNARD, Instructor I of Dental Hygiene, 1971
B.S., Baylor University

M. PAUL ROY, Instructor III of Machine Tools, Head, Industrial Department, 1963, 1971

MRS. VIRGINIA RUDLOFF, Instructor I of Vocational Nursing, 1970
Registered Nurse, State of Texas

J. C. SHANKLES, Instructor III of Welding, 1952, 1971

LENOX SIGLER, Instructor II of Industrial Electricity & Electronics Technology 1965, 1970

JAMES H. SMITH, Instructor I of Diesel Mechanics, 1968, 1970
C.C., Lamar University

JAMES D. SPENCER, Supervisor, Vocational-Technical Continuing Education, 1970
B.S., M.Ed., Texas A&M University

MRS. FAYE N. STONE, Instructor I of Vocational Nursing, 1969, 1970
Registered Nurse, State of Texas

MRS. BERNICE STURROCK, Instructor II of Vocational Nursing, 1963, 1971
Registered Nurse, State of Texas

MRS. EDNA MARY TERRELL, Instructor I of Vocational Nursing, 1968, 1970
Registered Nurse, State of Texas

ELLIS THOMPSON, Instructor III of Refrigeration and Air Conditioning Technology, 1956, 1971

WALTER W. TURMAN, Instructor II of Mathematics, 1967, 1971
B.S., East Texas State University
M.A., Texas A&M University

CAREY B. WESLEY, Instructor II of Welding, 1966, 1970
C.C., Lamar University

JOHN C. WEST, JR., Instructor I of Police Science, 1971
B.A., Lamar University
J. D., The University of Texas

HARRY L. WILLIAMS, Instructor II of Business Data Processing, 1968, 1971
B.B.A., Stephen F. Austin State University

JERRY L. WILSON, Instructor II of Industrial Electricity & Electronics Technology, 1970
B.S., Lamar University

(PART-TIME)

JACK C. AULBAUGH, Lecturer of Real Estate, 1966
B.S., Lamar University

F. L. BARGA, Lecturer of Industrial Supervision, 1971

HERMAN BLANTON, Lecturer of Real Estate, 1965

JAMES N. BROWN, Lecturer and Adjunct Professor of Dental Hygiene, Director of Dental Hygiene, 1971
B.S., Lamar University
D.D.S., The University of Texas

MRS. BARBARA Y. BURRIS, Lecturer of Related Arts, 1971
B.A., Lamar University

LYNNWOOD M. CLARK, Lecturer of Mathematics, 1970
B.S., Lamar University

ROBERT D. COLLEY, Lecturer of Welding, 1971

H. O. DANIELS, Lecturer of Industrial Instruments, 1956

JOHN C. DANNA, Lecturer of Drafting Technology, 1971

BERTRAND R. DIONNE, Lecturer of Industrial Supervision, 1966
B.A., The University of Texas

JAMES B. ENER, Lecturer of Real Estate, 1963

HORACE EPPERHART, Lecturer of Industrial Electricity & Electronics Technology, 1970

JOSEPH FISCHER, Lecturer of Mathematics, 1971
B.S., Lamar University

SHERMAN GUYON, Lecturer of Mid-Management, 1969
B.B.A., University of Houston

FRANK JAMESON, Lecturer of Real Estate, 1969

MRS. KAY JONES, Lecturer of Distributive Education, 1971
B.A., Mississippi Women's College

NEIL C. KERR, Lecturer of Welding, 1970

ROBERT A. KIRKLAND, Lecturer of Mathematics, 1971
B.S., Lamar University

JERRY KNOWLES, Lecturer of Business Data Processing, 1971
C.C., Lamar University

THOMAS MARTINDALE, Lecturer of Welding, 1971

CALVIN McKAY, Lecturer of Industrial Supervision, 1966
B.S., University of Southwestern Louisiana

ROBERT M. MOSS, Lecturer of Machine Tools, 1971
C.C., Lamar University

WILLIAM C. PETERS, Lecturer of Business Data Processing, 1967

GEORGE D. SCHULDT, Lecturer of Police Science, 1971
B.A., Sam Houston State University

JAMES S. TEMPLE, Lecturer of Machine Tools, 1971
C.C., Lamar University

MAX V. TRENCK, Lecturer of Industrial Supervision, 1952

LESLIE WALLEY, Lecturer of Industrial Electricity & Electronics Technology, 1970

JOHN C. WEST, SR., Lecturer of Layout, 1969
B.S., Drexel Institute of Technology

JOHN C. WILSON, Lecturer of Refrigeration & Air Conditioning Technology, 1970
B.S., M.E., Texas A&M University

ROBERT G. WOLFE, Lecturer of Industrial Electricity & Electronics Technology, 1967
B.S., Louisiana Tech University

MRS. ANITA WOOD, Lecturer of Basic Communications, 1971
B.A., Sam Houston State University

LEONARD E. WRIGHT, Lecturer of Refrigeration & Air Conditioning Technology, 1971
C.C., Lamar University

What Is a Technician?

"Technicians who work with engineers and scientists are among the fastest growing occupational groups in the United States. In recent years, the needs of the Nation's defense program, added to those of the expanding civilian economy, have greatly intensified the demand not only for engineers and scientists but also for technical workers with less training."

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"Technicians are utilized in virtually every activity where technical know-how is required. One of their largest and best known areas of employment is research, development, and design work. Technicians in this type of activity who have titles such as laboratory technicians, physical science aide, or engineering aide generally serve as direct supporting personnel to engineers or scientists. They conduct laboratory experiments or tests; setup, calibrate, and operate instruments; and make calculations. They may work on the fabrication and assembly of experimental equipment and development of models, do drafting and in some instances do design work.

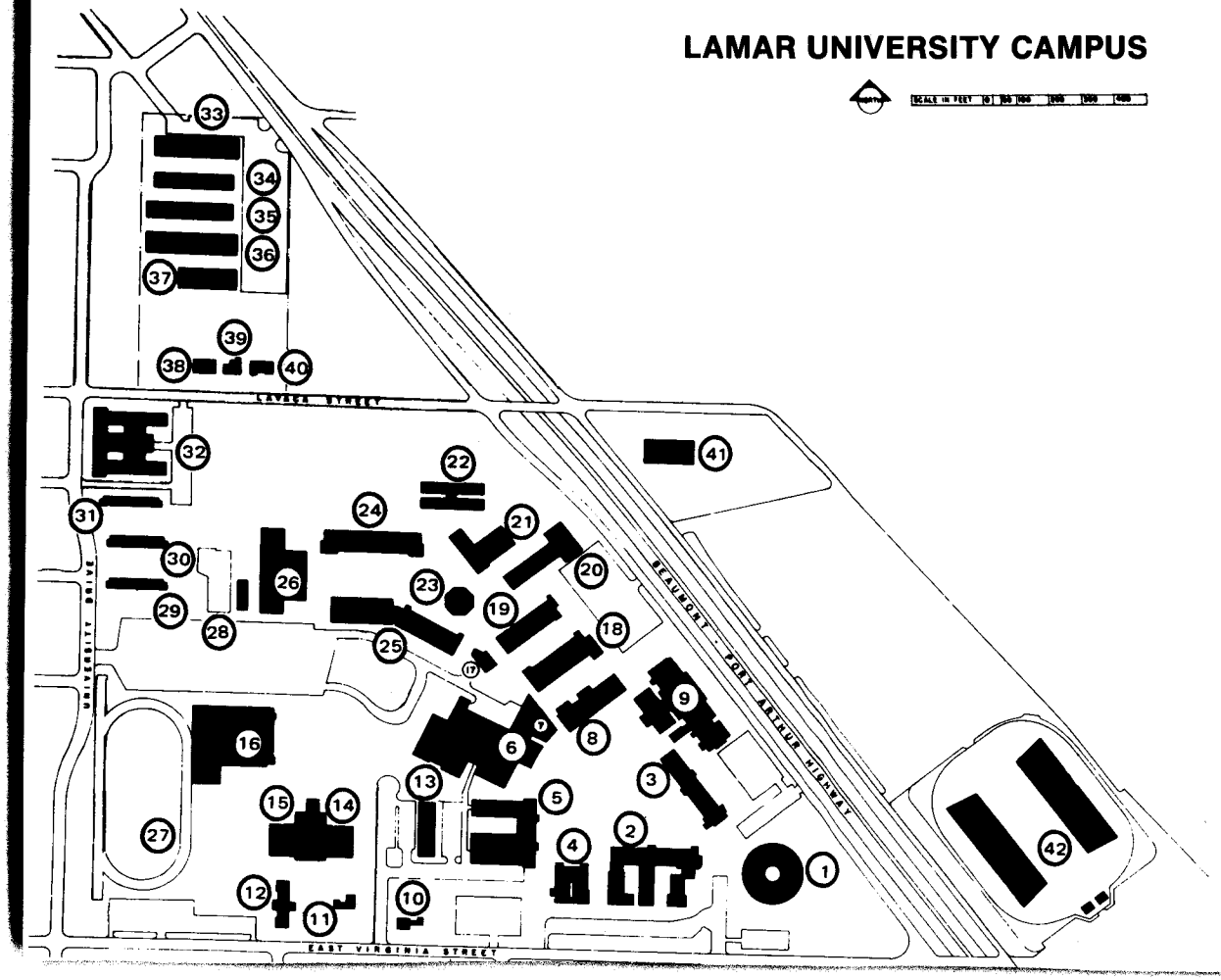
"Technicians in jobs related to production usually follow a course laid out by the engineer or scientist, but they often work without close supervision. They may aid in the various phases of the production planning, such as working out specifications regarding materials and methods of manufacture. Sometimes technicians serve as production supervisors or inspectors, perform tests to insure quality control of products, or make motion and time studies designed to improve the efficiency of operations. They may also perform liaison work between departments such as research or engineering and production.

"In the installation, operation, and maintenance of complex machinery and equipment, technicians often handle or supervise work that might otherwise have to be done by engineers.

"Technicians may also be employed as supervisors of construction projects, as technical representatives of manufacturers seeking to aid the customer in achieving maximum utilization of technical products, or as technical writers of specifications and manuals."*

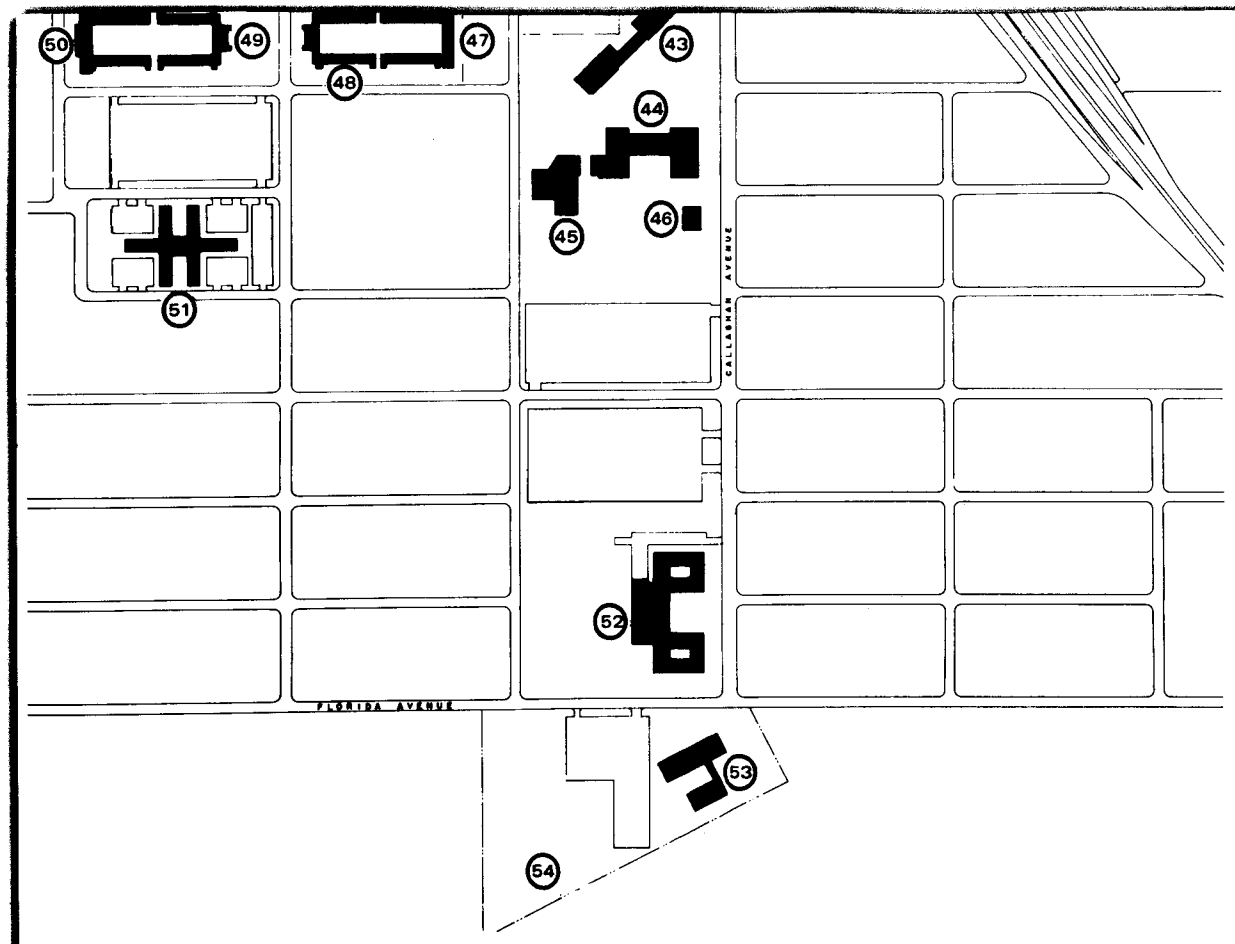
**Employment Outlook for Technicians*. A Report Prepared by the Veterans Administration in Cooperation with the United States Department of Labor, March 1958, pp. 1-2.

LAMAR UNIVERSITY CAMPUS



LEGEND

1. ADMINISTRATION BUILDING
2. ENGINEERING NO. 1
3. STUDENT AFFAIRS
4. HOME ECONOMICS
5. ENGINEERING NO. 2
6. SETZER STUDENT CENTER
7. BOOKSTORE
8. PHYSICS
9. LIBRARY
10. HOME ASSOCIATE DEAN OF STUDENTS
11. PRESIDENT'S HOME
12. HEALTH CENTER
13. POST OFFICE
14. DINING HALL A
15. DINING HALL B
16. MEN'S PHYSICAL EDUCATION
17. MECHANICAL PLANT
18. GEOLOGY
19. BUSINESS
20. MUSIC - SPEECH
21. THEATRE
22. ART
23. SCIENCE AUDITORIUM
24. BIOLOGY
25. CHEMISTRY
26. WOMEN'S PHYSICAL EDUCATION
27. TRACK



28. SWIMMING POOL
29. LAMAR APARTMENTS NO. 1
30. LAMAR APARTMENTS NO. 2
31. LAMAR APARTMENTS NO. 3
32. GENTRY HALL
33. TECHNICAL ARTS BUILDING NO. 1
34. TECHNICAL ARTS BUILDING NO. 2
35. TECHNICAL ARTS BUILDING NO. 3
36. TECHNICAL ARTS BUILDING NO. 4
37. TECHNICAL ARTS BUILDING NO. 5
38. NURSERY SCHOOL
39. HOME MANAGEMENT
40. BUILDING SUPERINTENDENT'S HOME
41. MAINTENANCE BUILDING
42. CARDINAL STADIUM
43. ENGINEERING NO. 3
44. LIBERAL ARTS
45. EDUCATION
46. MECHANICAL PLANT
47. MORRIS HALL
48. COMBS HALL
49. CAMPBELL HALL
50. GRAY HALL
51. PLUMMER HALL
52. BROOKS & SHIVERS HALLS
53. EDUCATIONAL SERVICES CENTER
54. STADIUM


BIG RED

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