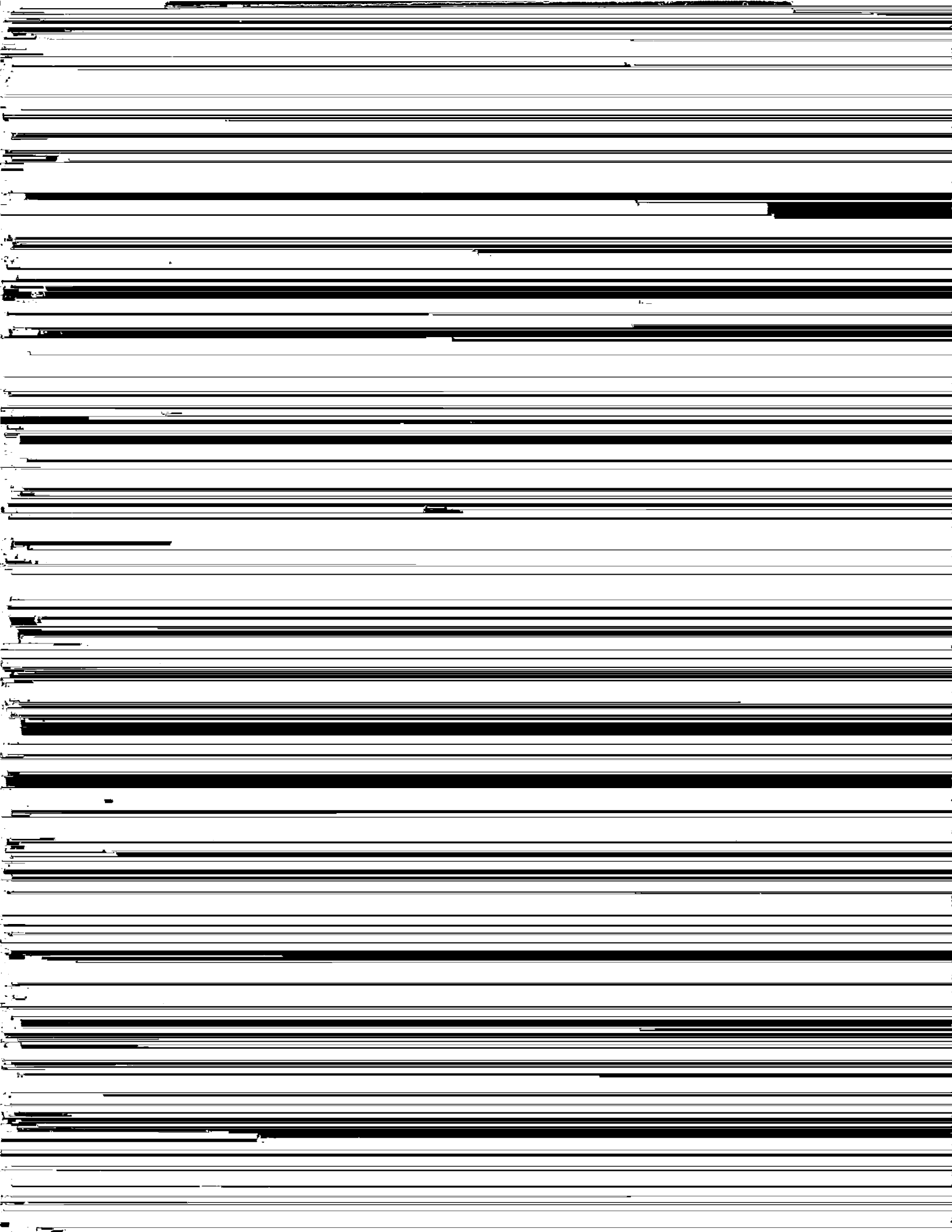


LAMAR UNIVERSITY

College of Graduate Studies

1973-74 Bulletin
Vol. 23 No. 7 April 1973

Founded in 1923, and established as a four-year coeducational state-supported college on September 1, 1951.

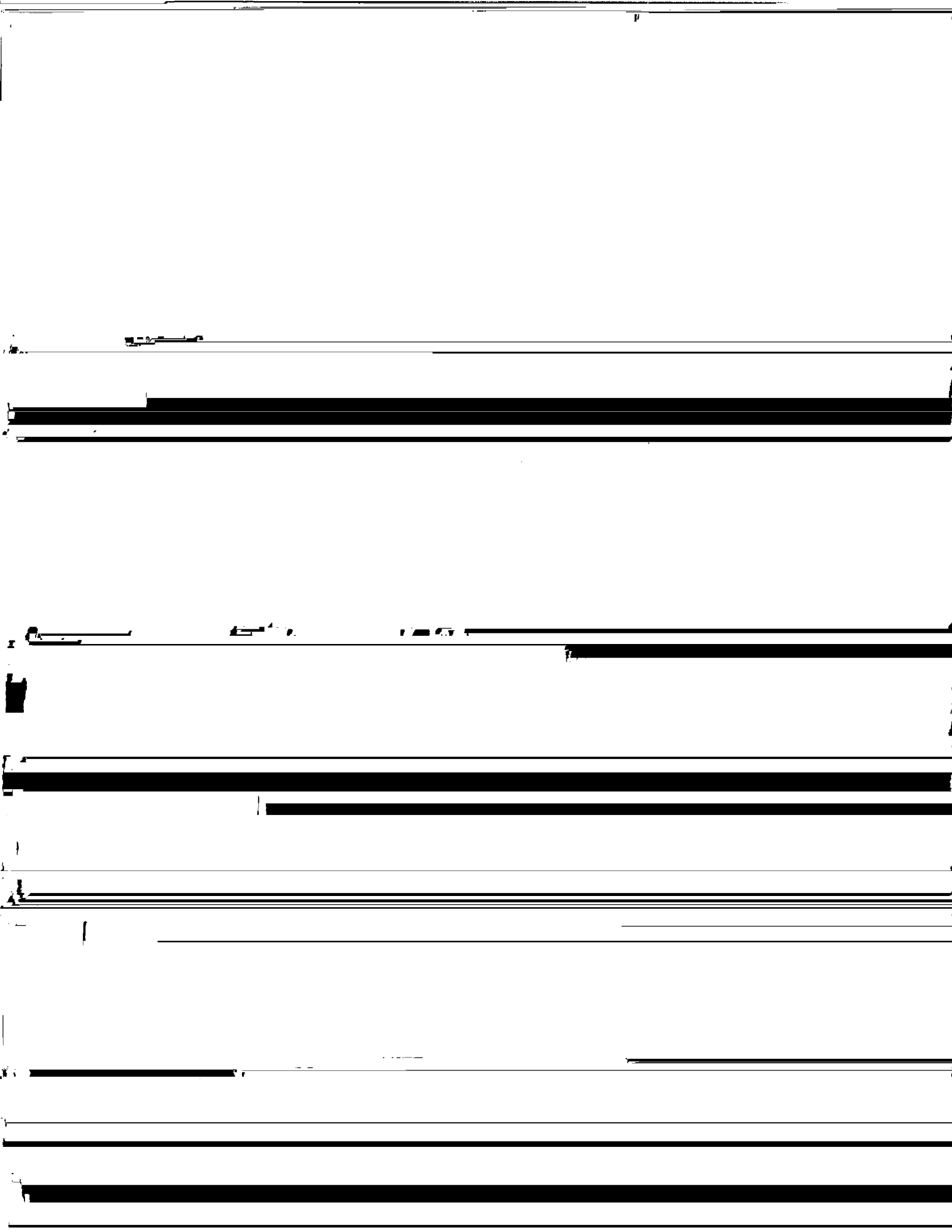
The courses, tuition, and fees and all other conditions and policies set forth in this catalog issue shall be subject to change without notification.

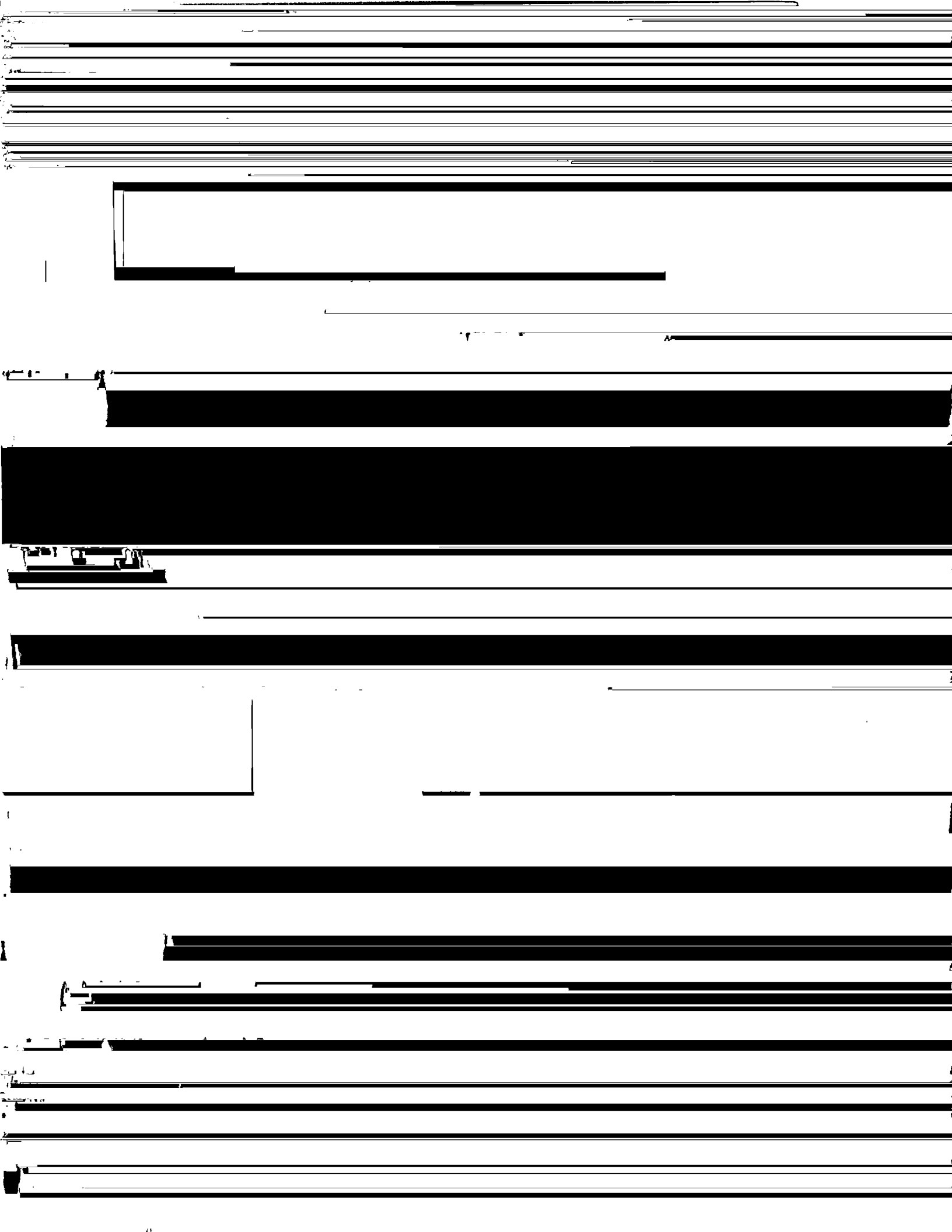
Table of Contents

Board of Regents.....3
Calendar.....4

Board of Regents

Otho Plummer, Chairman ..... Beaumont





JULY

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1-August 2 Period for Comprehensive Oral Examination.
4 Independence Day holiday.
8 Last date for dropping courses or for withdrawing.
10 Last Class Day.

Officers of Administration

GENERAL

JOHN E. GRAY, B.A., M.A., LL.D., President
ANDREW J. JOHNSON, B.A., M.A., Ph.D., Vice-President for Academic Affairs
H. C. GALLOWAY, JR., B.S., M.Ed., Vice-President for Finance
G. A. WIMBERLY, SR., B.S., Assistant to the President and Personnel Officer
NORRIS H. KELTON, B.A., M.A., Dean of Admissions and Records
OSCAR K. BAXLEY, B.B.A., Business Manager
GEORGE E. McLAUGHLIN, B.S., Dean of Student Affairs

The Graduate Faculty

Members

ROBERT F. ACHILLES, Professor of Speech
B.S., McPherson College
M.A., Ph.D., Wichita State University

HOWARD W. ADAMS, Professor of Secondary Education
B.A., Wayne State Teachers College
M.A., Ed.D., University of Nebraska

ALI M. ALI, Associate Professor of Industrial Engineering
B.S., Alexandria University

[redacted]

STERLING C. CRIM, Professor of Mathematics

VERNON H. GRIFFIN, Associate Professor of Elementary Education
B.S., M.Ed., Sam Houston State University
Ed.D., University of Houston

HOWELL H. GWIN, JR., Associate Professor of History
B.A., M.A., Ph.D., Mississippi State University

FREDERIC C. JELEN, Professor of Chemical Engineering
S.B., S.M., Massachusetts Institute of Technology
M.A., Ph.D., Harvard University
Registered Professional Engineer (New York, Texas)

ANDREW J. JOHNSON, Professor of History, Vice-President for Academic Affairs
B.A., The University of Texas
M.A., The University of Chicago
M.A., Ph.D., Indiana University

HARVEY J. JOHNSON, Professor of Secondary Education
B.A., Texas College
M.A., University of Michigan
Ed.D., University of Southern California

HI KYUNG KIM, Associate Professor Economics
B.B.A., M.B.A., Southern Methodist University
Ph.D., University of Houston

C. D. KIRKSEY, Professor of Business Administration—Head, Department of Business Administration
B.S., M.S., North Texas State University

ROBERT A. McALLISTER, Professor of Chemical Engineering—Head, Department of

CHARLES A. PARTIN, Professor of Economics, Head—Department of Economics

MONTY L. SONTAG, Professor of Special Education—Head, Department of Special

RICHARD E. WALKER, Professor of Chemical Engineering
B.S., Purdue University
M.S., Bucknell University
Ph.D., Iowa State University
Registered Professional Engineer

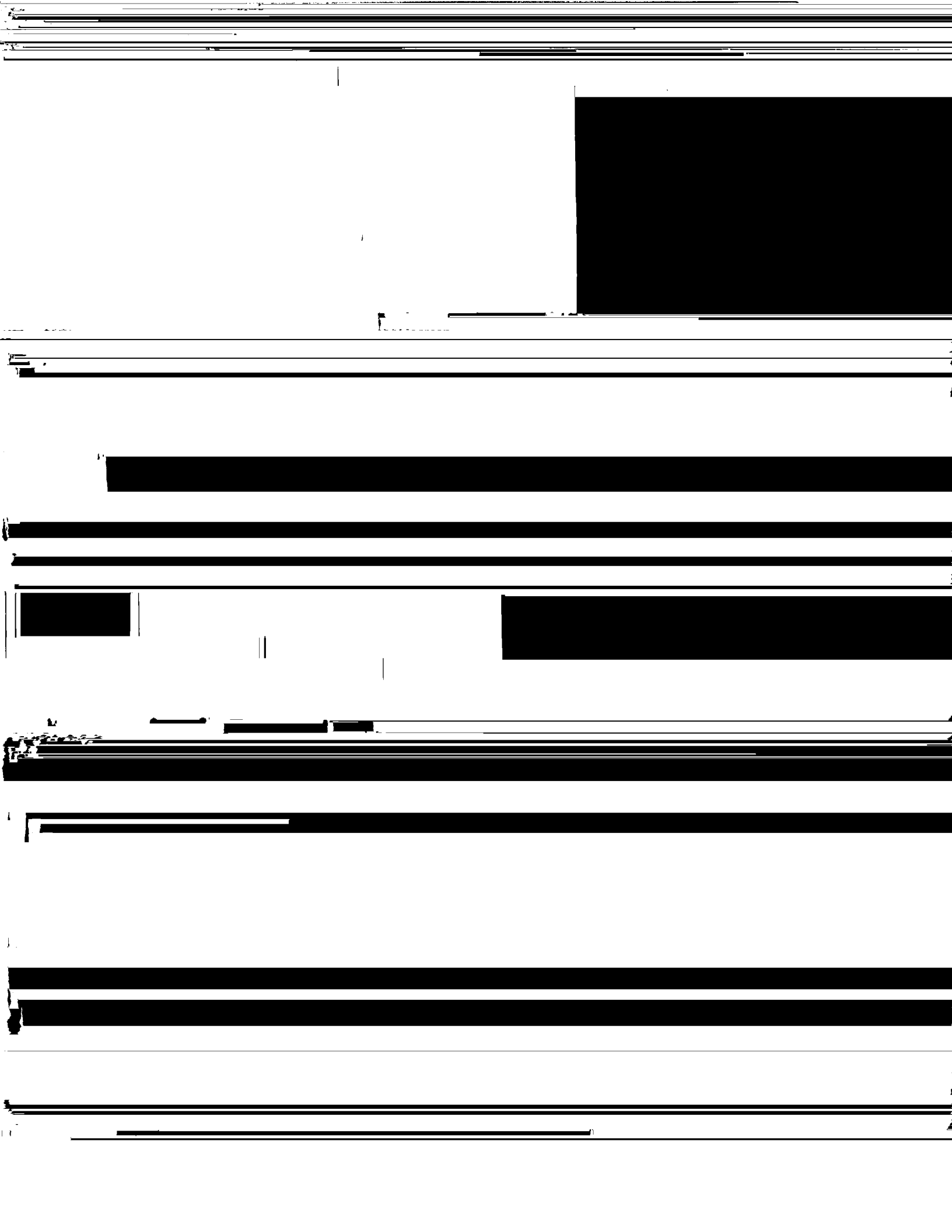
MICHAEL E. WARREN, Associate Professor of Biology—Head, Department of Biology
B.A., M.A., Ph.D., The University of Texas

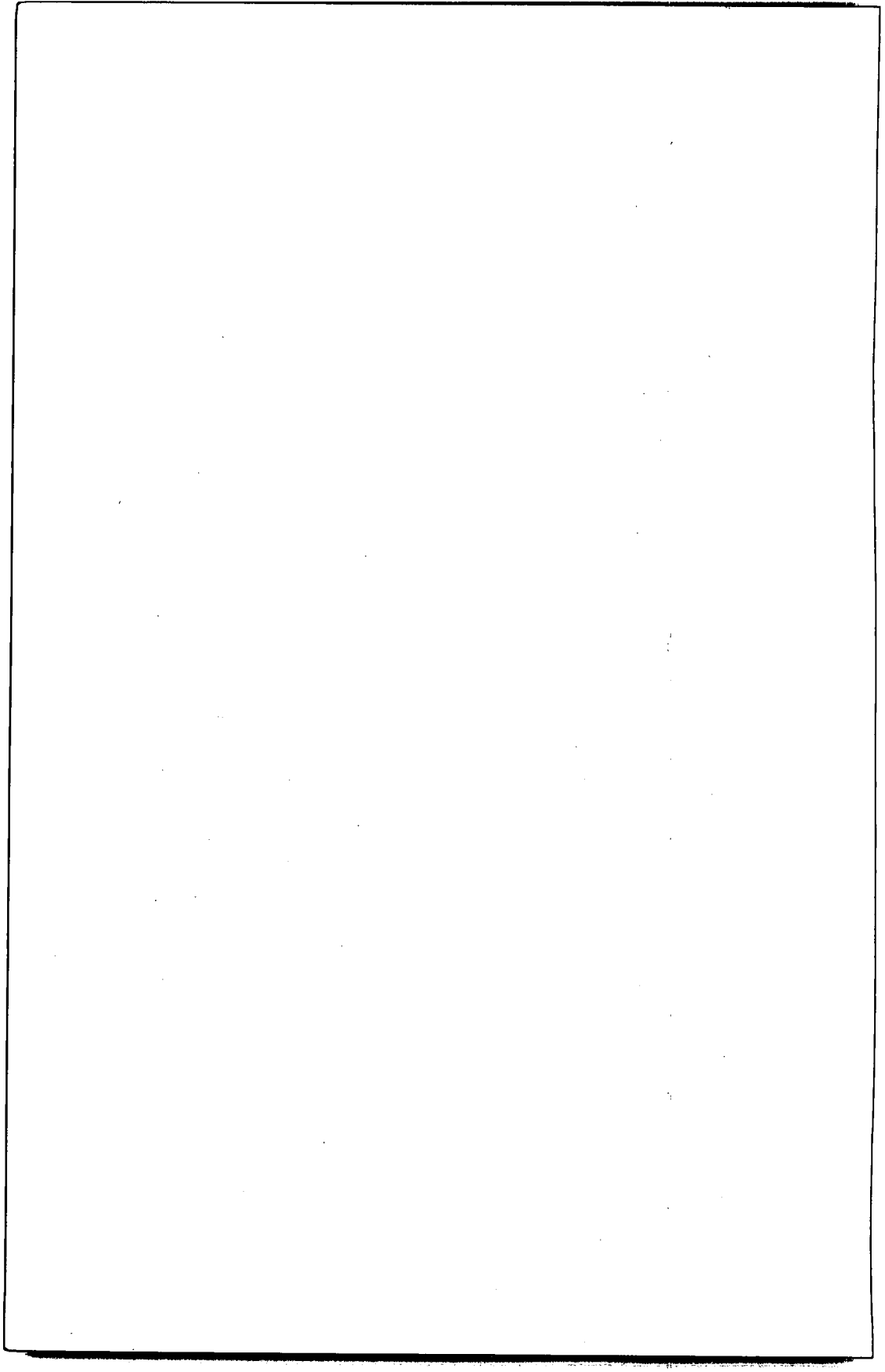
SPENCER L. BRINKERHOFF, JR., Assistant Professor of Civil Engineering
B.S., University of Arizona
M.S., Ph.D., Arizona State University

WILLIAM E. MORGAN, Assistant Professor of Civil Engineering
B.S., U.S. Naval Postgraduate School
M.S., University of Alaska
Ph.D., The University of Texas

J. DALE ORTEGO, Assistant Professor of Chemistry
B.S., University of Southwestern Louisiana
Ph.D., Louisiana State University

WILLIAM M. PEARSON, Assistant Professor of Government





General Information

LOCATION

Lamar University, a state-supported institution, is located in Beaumont, the center of industrial Southeast Texas. The campus is adjacent to the Port Arthur Highway (Spur 380) in southeastern Beaumont.

The city features modern schools, churches and shopping districts to serve the industrial community of approximately 120,000 persons. Principal industries in the area are oil refining, shipping, shipbuilding, rubber manufacturing and chemical production. Surrounding the urban communities are ranches and rice farms.

Within the metropolitan area are the cities of Port Arthur, Orange, Vidor, Port Neches, Nederland and Groves. All lie within 25 miles of Beaumont and form the heart of the upper Gulf Coast area with a population of more than 350,000.

HISTORY

ACCREDITATION AND APPROVAL

Lamar University is fully accredited by the Association of Texas Colleges and Universities and by the Southern Association of Colleges and Schools. The College of Graduate Studies is a member of the Council of Graduate Schools in the United States.

TEACHING FELLOWSHIPS

A number of teaching fellowships are available in the various departments of the College of Graduate Studies. Application forms and additional information may be obtained from the Dean of the College of Graduate Studies.

The stipend for a teaching fellowship varies in accordance with the number of courses taught, and the student must reduce his academic load in relation to his teaching assignment.

Tuition and fees are not waived for teaching fellows, but nonresidents (out of Texas) are not required to pay out-of-state tuition.

TEACHER CERTIFICATION

Lamar University has been approved by the Texas Education Agency to offer professional certification programs in Elementary, Special, Secondary Education, Counseling

Fees and Expenses

PAYMENT OF FEES

Lamar University reserves the right to change fees in keeping with acts of the Texas Legislature and the University's Board of Regents.

A student is not registered until 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.

Term	No. of Semester Hours	Tuition A	Tuition B	Tuition C	Tuition D	Student Services Fee	Building Use Fee	Setzer Center Fee	Total Charge A	Total Charge B	Total Charge C	Total Charge D
Each Six-Week Summer Session	1	$25	$40	$50	$100	$3	$13	$5	$46	$61	$71	$121
	2	25	80	50	100	6	13	5	49	104	74	124
	3	25	120	50	100	9	13	5	52	147	77	127
	4	25	160	66	100	12	13	5	55	190	96	130
	5	25	200	83	100	15	13	5	58	233	116	133
	6	25	240	100	100	15	13	5	58	273	133	133
	7	28	280	117	100	15	13	5	61	313	150	133
	8	32	320	133	112	15	13	5	65	353	166	145
	9	36	360	150	126	15	13	5	69	393	183	159
	10	40	400	167	140	15	13	5	73	433	200	173

Code: A, Texas residents; B, nonresidents who are U.S. citizens; C, nonresi-

Miscellaneous Fees

Binding Thesis (3 copies) $18.00

Student Housing

The student housing program at Lamar is designed to supplement the academic program of instruction. It provides opportunities for social [illegible]

Academic Regulations

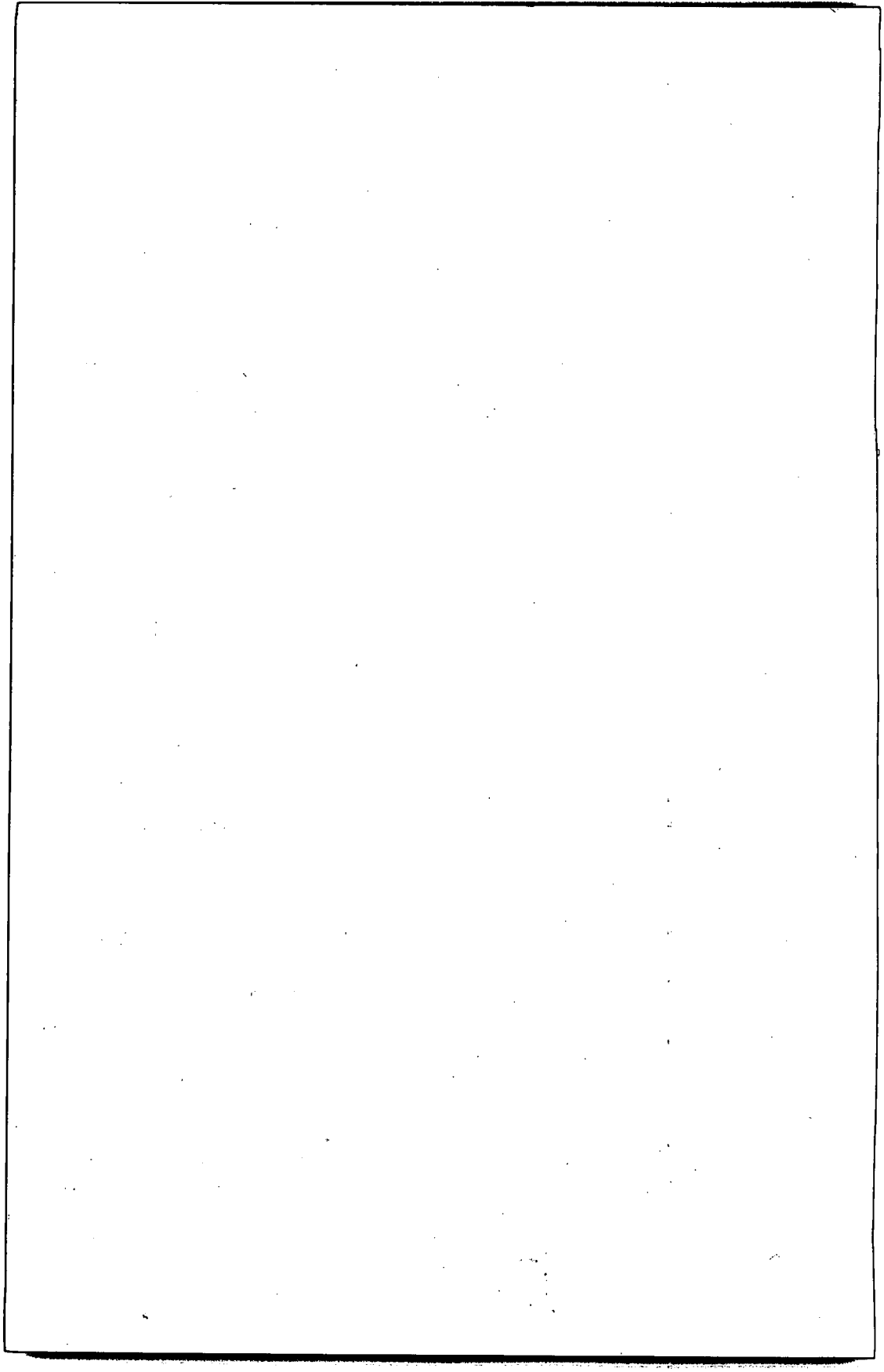
COURSE NUMBERING

[redacted]

ENFORCED WITHDRAWAL DUE TO ILLNESS

The Director of the Health Center and the Dean 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).

[redacted]



The College of Graduate Studies

HISTORY

The College of Graduate Studies was instituted in the Fall 1960, with the offering of the Master of Arts degree in the fields of history and English.

ENROLLMENT

Admission

Applicants seeking admission to the College of Graduate Studies must present evidence

C. Admission requirements for foreign students are evaluated on an individual basis after the following information is received:
   (1) Official transcripts from colleges previously attended.
   (2) Scores on the Graduate Record Examination, and scores on the Test of

COLLEGE OF GRADUATE STUDIES REQUIREMENTS

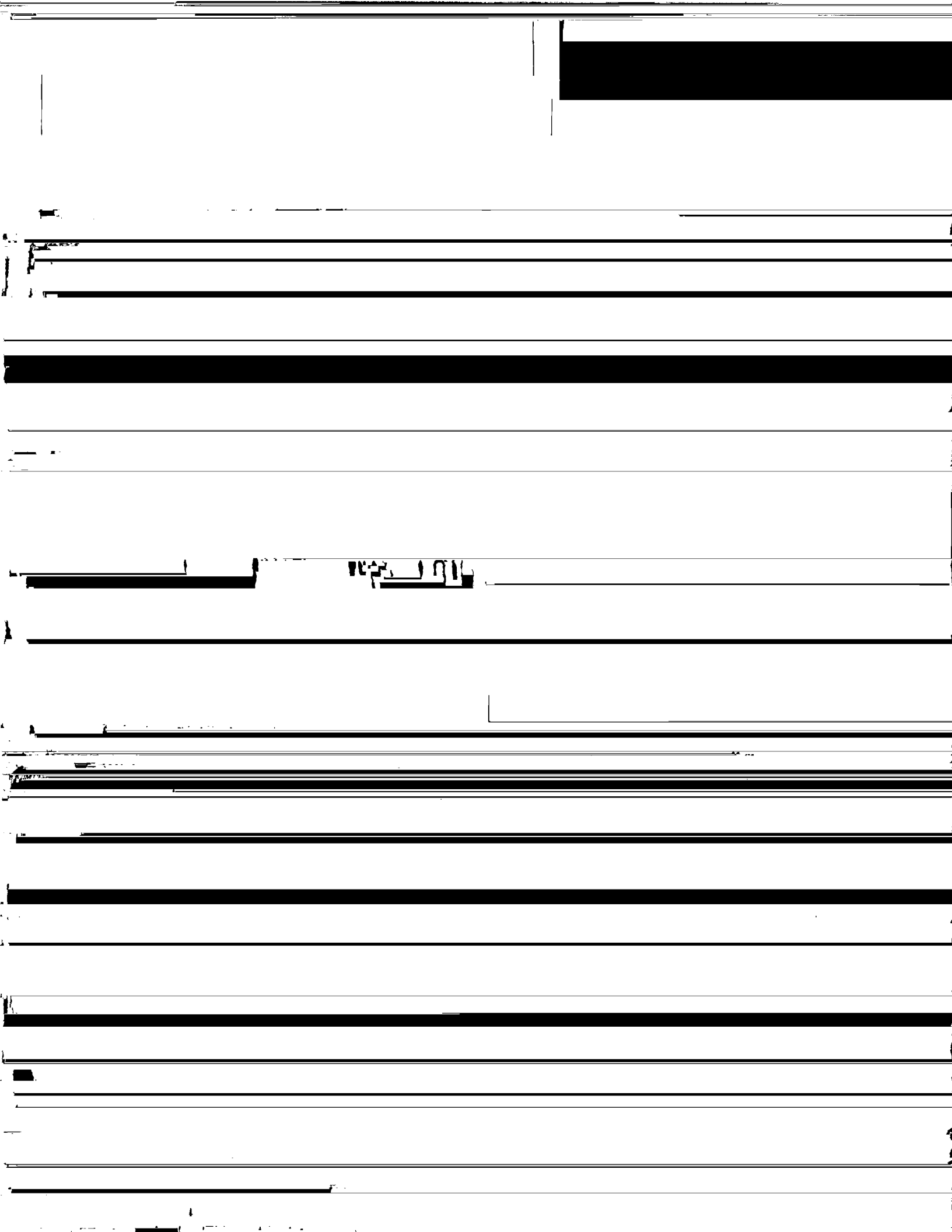
General

12. The University reserves the right to change any of its rules, requirements, or course regulations without notice.

Doctor of Engineering

A student will be admitted to candidacy for the doctor of engineering degree only upon the recommendations of his doctoral committee. In general this committee will require the following:

1. Satisfactory progress in all courses and



Fields of Study

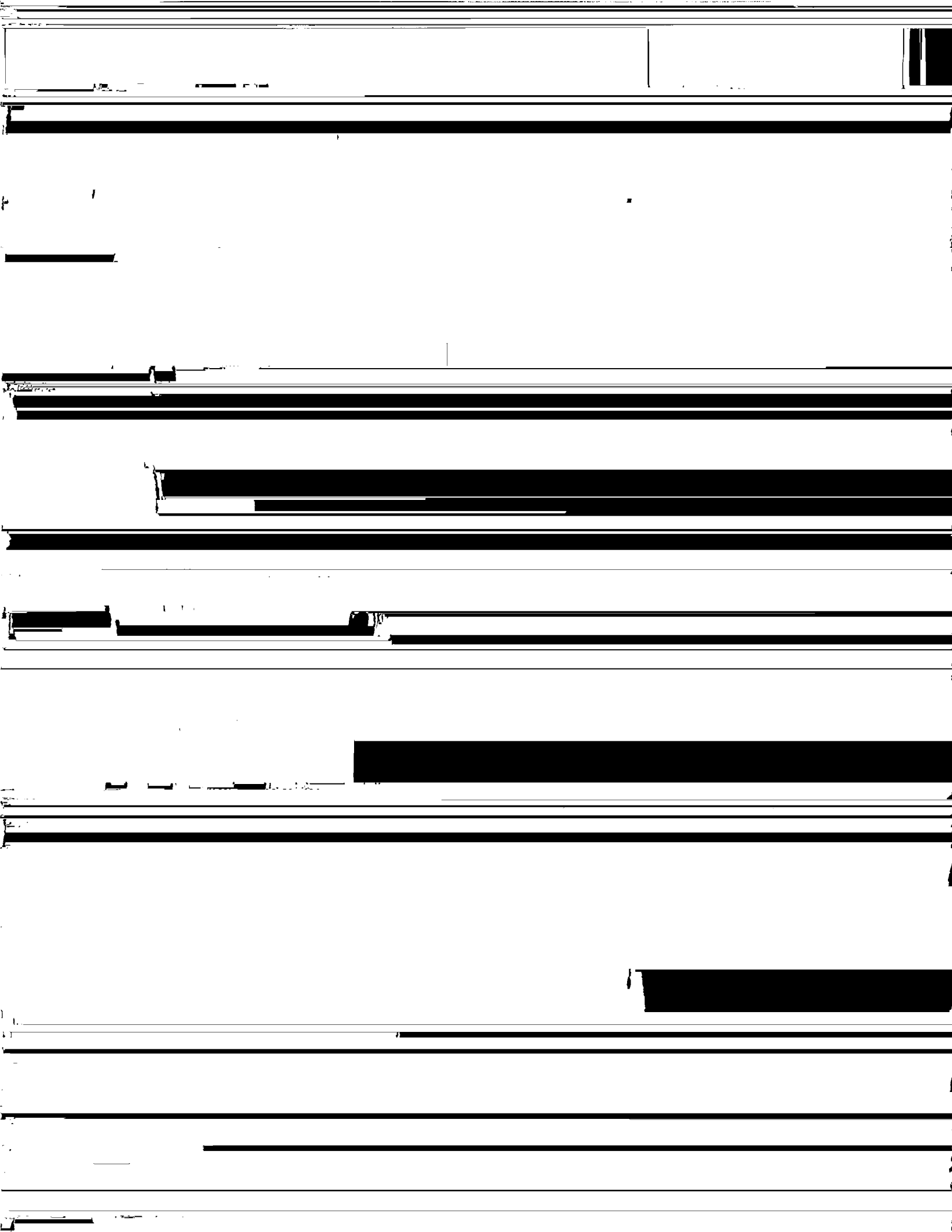
Department of Biology

The Department of Biology offers a program of study leading to the Master of Science in Biology degree. It is designed to enhance the professional competence of graduates in biology or closely related disciplines who are presently engaged in or planning to enter secondary school or college teaching, or who expect to be employed by private or governmental agencies in biologically oriented fields. Applicants must have completed a minimum of 24 semester hours in the biological sciences, or remove any deficiencies as provided in the section on Admission.

DEGREE REQUIREMENTS

The candidate for the M.S. in Biology degree must meet all the College of Graduate Studies general requirements as listed in this catalog. Additional specific requirements are:

1. Twenty-four semester hours of graduate credit which may include a maximum of 12 semester hours in approved 400G level biology courses with augmented requirements.
2. A thesis (six semester hours).



graduate advisor and Department Head. Course descriptions may be found in the Bulletin of Lamar University.

Bio 440G—Ornithology
Bio 441G—Parasitology
Bio 442G—Entomology
Bio 443G—Limnology
Bio 444G—Vertebrate Natural History
Bio 445G—Marine Biology
Bio 446G—Terrestrial Ecology
Bio 447G—Cellular Biology
Bio 449G—Protistology

College of Business

The College of Business offers a program of study leading to the Master of Business Administration degree. Persons seeking admission to this program must meet the general requirements for admission that are outlined in the Graduate Catalog. An applicant must also have completed the equivalent of the following undergraduate courses in business:

Eco 5301—Money and Capital Markets
Eco 5341—Manpower

Professor Reginald Rushing
Accounting
Associate Professor Malcolm W. Veuleman
Accounting

Associate Member

Assistant Professor Larry W. Spradley
Business Administration

Accounting courses will be selected from the following list:

534—Seminar in Accounting. A course designed to broaden the student's concept of

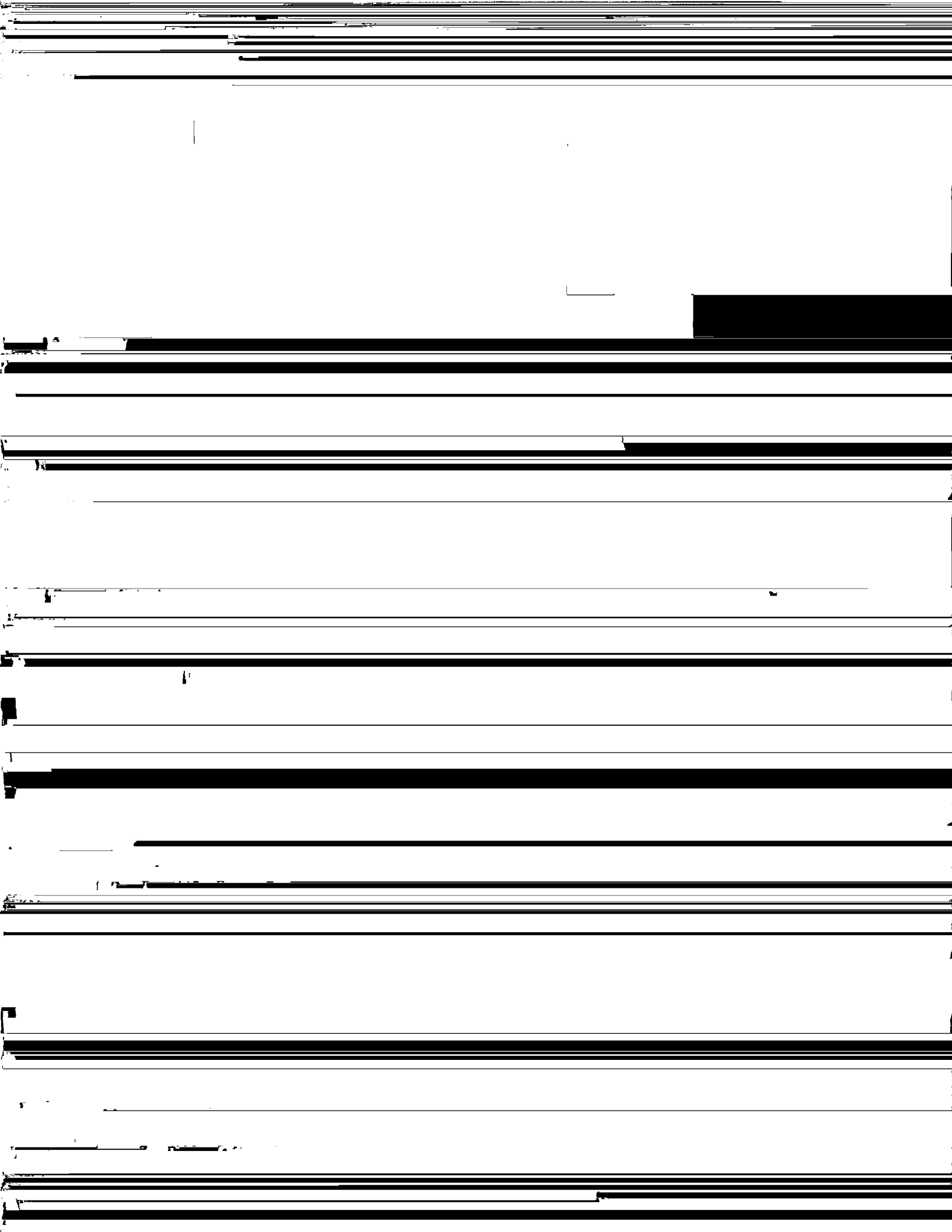
individuals and groups. The case-study approach is utilized. Class: 3 hours. Credit: 3 semester hours.

539—Quantitative Analysis Control. A course designed to help the student examine the decision-making function through the use of model building and other mathematical procedures. Emphasis is on the selection of a model or a tool for a particular business problem. Problem areas are drawn from the major functions of an organization. The techniques covered include decision making under uncertainty, inventory analysis, linear programming. Markov analysis, and project-planning models. Prerequisite: BA 3302 and mathematical competence. Class: 3 hours. Credit: 3 semester hours.

5310—Advanced Statistical Analysis. Further development of the application of statistical methods to the process of making decisions in the face of uncertainty. The use of quantitative methods and models for management is emphasized. Topics include multiple correlations, sampling theory, queuing theory, and statistical quality control. Prerequisite:

America's economic development, past, present, and potential. Prerequisites: 6 hours of economics or consent of instructor and graduate standing. Class: 3 hours. Credit: 3 semester hours.

537—Managerial Economics. A study in depth of the principles and techniques of



Department of Chemistry

The Department of Chemistry offers a program of study leading to the Master of

[redacted]

5371—Selected Topics in Physical Chemistry. May be repeated a maximum of six semester hours when topic varies. Description of course content will appear in schedule

College of Education

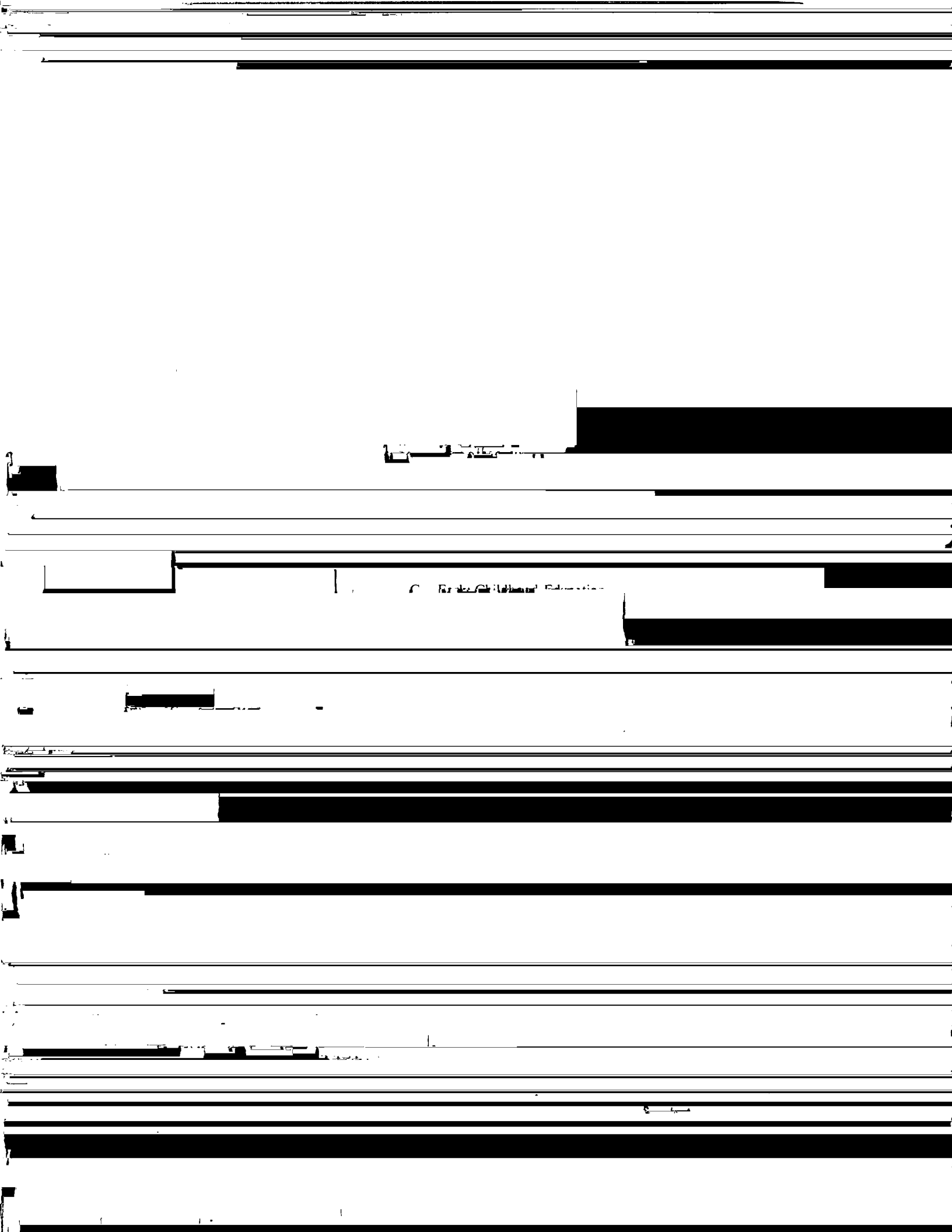
Graduate degree and certification programs are offered by the departments of Elementary, Secondary, Special and Health and Physical Education. These programs of study are described in the following pages.

DEPARTMENTS OF EDUCATION

The above departments offer programs of study leading to the Master of Education degree and/or certification in the areas indicated below:

Degrees Offered:

7. The student who does not choose to write a thesis must earn a minimum of 36 hours



(2) Edu 5313—Learning Potentials in Mentally Retarded Children
(3) Edu 5314—Instructional Processes with the Mentally Retarded
(4) Edu 5315—Problems and Issues in Mental Retardation
(5) Edu 5362—Psychoeducational Evaluation of Exceptional Children

Students may obtain Provisional certification in the above listed areas. A combination

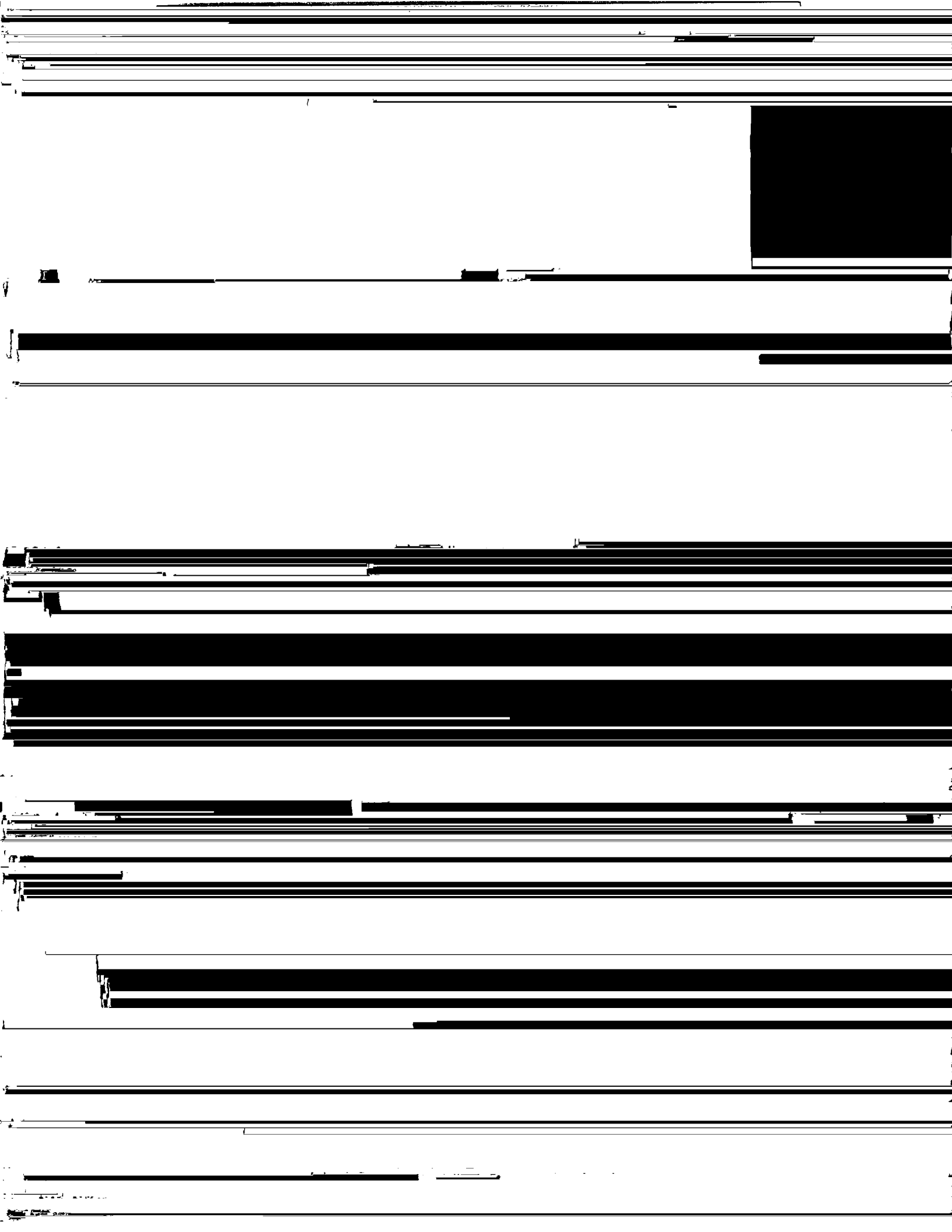
Other Certificates

It is possible for graduate students to complete requirements for a Provisional Teaching Certificate while completing a Master of Education degree in Secondary Ed[illegible]

Degree Plan in Supervision

Requirements for a Master of Education in Supervision may be met by completing a 36 semester hour nonthesis program or by completing a 30 semester hour plan that includes a thesis. The student is allowed some flexibility in planning his program; however, the usual pattern of course work is as follows:

1. *Professional Development.* Six semester hours.
   Edu 531—Research (Required)
   Edu 5316—Administration and Supervision of Special Education Programs
   Edu 5334—Interpretation and Analysis of Tests and Measurement



Professor Betty Fay Coody
Elementary Education, elementary curriculum
Associate Professor Walter Dezelle, Jr.
Special Education, mental retardation
Associate Professor Vernon H. Griffin
Elementary Education, elementary curriculum
Professor W. Richard Hargrove

534—Advanced Study in Human Development. A study of the development and nature of the human personality. Emphasis on recent psychological and biological experiments. Class: 3 hours. Credit: 3 semester hours.

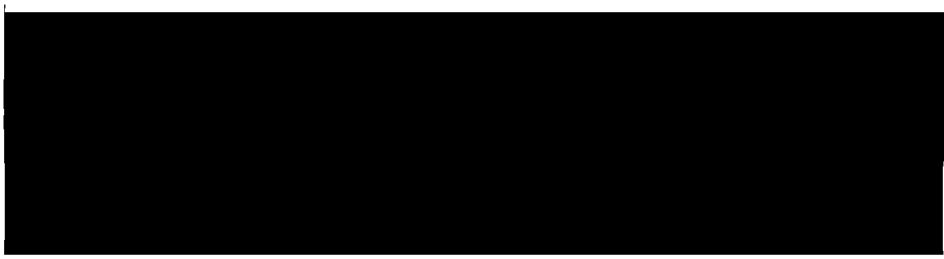
535—The Learning Process. Dynamics, processes, and systems of learning. Theoretical emphasis. Class: 3 hours. Credit: 3 semester hours.

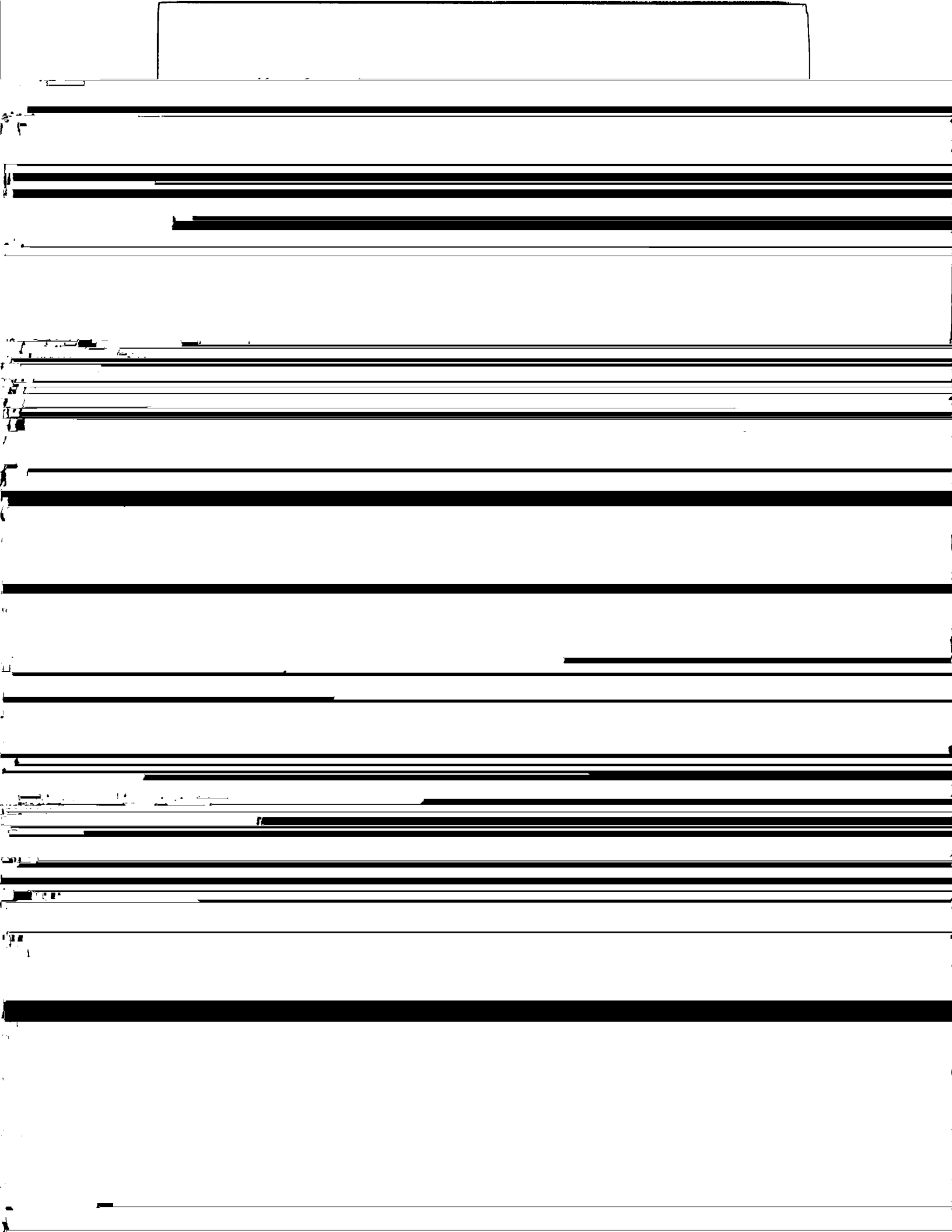
536—Problems in Teaching Science and Social Studies in the Elementary School. A study of current developments, recent trends and innovative methods of teaching science and social studies in the elementary school, with emphasis upon individual teaching

5313—Learning Potentials in Mentally Retarded Children. Determining the degree of modifiability of pupil behaviors, identifying functioning levels, and devising appropriate teaching strategies; individual project. Class: 3 hours. Credit: 3 semester hours.

5314—Instructional Processes with the Mentally Retarded. Translating the behaviors of mentally retarded children into child development categories and applied behavior modification processes in child study projects. Class: 3 hours. Credit: 3 semester hours.

5315—Problems and Issues in Mental Retardation. Appraisal of current problems, trends and practices in the education and care of exceptional children. Class: 3 hours. Credit: 3 semester hours.





5364—Behavior Modification and Contingency Management of Disabled Learners. The description of specific types of learning, the sequence in learning school-related tasks, and

Gov 535—Seminar in the Theory and Practice of Public Administration. An analytical survey of organization, management and problems in public executive organizations: includes study of organizational theory, policy formulation, personnel, finance and administrative leadership. Class: 3 hours. Credit: 3 semester hours.

Soc 531—Seminar in Sociology. Basic concepts and principles of sociology as applied to the study of selected topics. Designed for education majors or other nonsociology

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION FOR WOMEN

531—Cultural Foundations of Physical Education. A study of history and cultural foundations of sport and physical education activities, their origin and influence upon modern man. Class: 3 hours. Credit: 3 semester hours.

532—Seminar in Physical Education. Designed to develop abilities in locating and evaluating literature and research in physical education and in allied fields. Course may be repeated for a maximum of six semester hours [illegible]

College of Engineering

2. The general requirement is 36 semester hours of graduate work. At least 18 semester hours of this work must be engineering courses at the 500 level. The remainder will be selected by the graduate student through consultation and agreement with his graduate committee.
3. A graduate student holding an Engineer-in-Training (EIT) certificate or a graduate student who is a Professional Engineer registered in the State of Texas (or registered in another state where requirements do not conflict with the provisions of the Texas Engineering Practice Act and are of a standard not lower than those specified in

faculty will allow. In addition to his study program the student will be expected to demonstrate a proficiency in at least one computer language.

The student is expected to pursue his study program in a continuous manner by earning three semester hours credit in two consecutive long terms. Failure to do so will require an application to the Graduate Engineering Faculty to continue his study program.

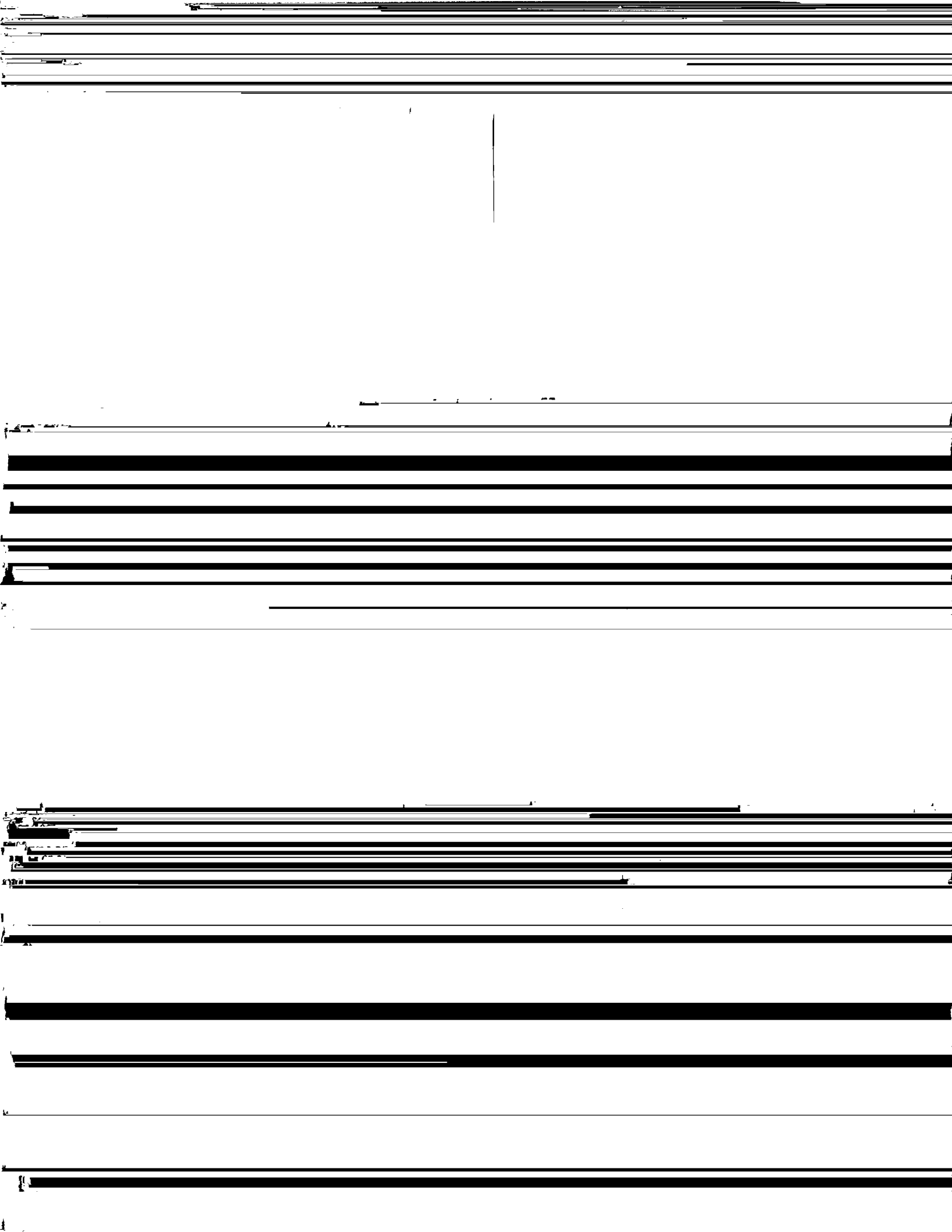
Candidacy Examination

Near the end of the study program the student would make written application to his doctoral committee to be allowed to take the candidacy examinations. The purposes of

Associate Professor Edwin O. Eisen
Vapor-liquid equilibria,
reaction kinetics, thermodynamics
Professor David G. Gates
Decision-making processes; plant layout, human factors
Associate Professor Jack R. Hopper
Reaction, kinetics, catalysis
Professor Frederic C. Jelen
Corrosion, economic analysis
Professor Robert A. McAllister
Transport properties, fluid mechanics

533—*Computer Methods in Engineering Analysis.* Computer techniques will be intro-

5311—Heat Transfer Analysis. Fundamental principles of heat transfer by conduction, convection and radiation. Emphasis will be given to the analysis of problems com-



1. Kinetic Theory of Gases
2. Transients in Compressible Flow
3. Non-linear Vibrations
4. Protective Construction
5. Absorption and Extraction
6. Stagewise Mass Transfer
7. Properties of Gases and Liquids
8. Nuclear Engineering
9. Hybrid and Analog Computers
10. Adaptive Control
11. Optimization Techniques

IE 4303G—Linear Programming
IE 4313G—Human Engineering
IE 4315G—Organization and Management

ME 431G—Engineering Systems Design
ME 432G—Mechanical Vibrations
ME 434G—Internal Combustion Engines
ME 435G—Turbomachinery
ME 438G—Environmental Systems Engineering

Department of English

Degree Requirements

The degree of Master of Arts in English requires the completion of 30 semester hours of graduate work: 18 in English, six in thesis, and six in an approved minor. With the approval of the Head of the Department of English, 12 semester hours of course work may be substituted for the thesis. At least 18 semester hours, including the thesis, must be in English courses numbered 500 or above. The minor must be approved by the Head of the Department of English or with his approval six additional hours in English may

Professor Alvice W. Yeats
British literature: 1840 to the present
Professor David D. Zink
Nineteenth century American and British literature

Associate Members

Assistant Professor Olga D. Harvill
British Romantic literature
Assistant Professor Arney L. Stirckland
Linguistics and English education

430G—History of the English Language
432G—Studies in Sixteenth Century Literature
434G—Shakespeare
435G—Studies in Seventeenth Century Literature
438G—Studies in Eighteenth Century Literature
439G—Studies in Romantic Literature
4311G—Studies in Victorian Literature
4317G—Contemporary Drama
4318G—Contemporary Poetry

Department of Geology

The Department of Geology offers the following graduate courses to be used primarily as support to other advanced degree programs.

GRADUATE FACULTY

Members

Professor H. E. Eveland

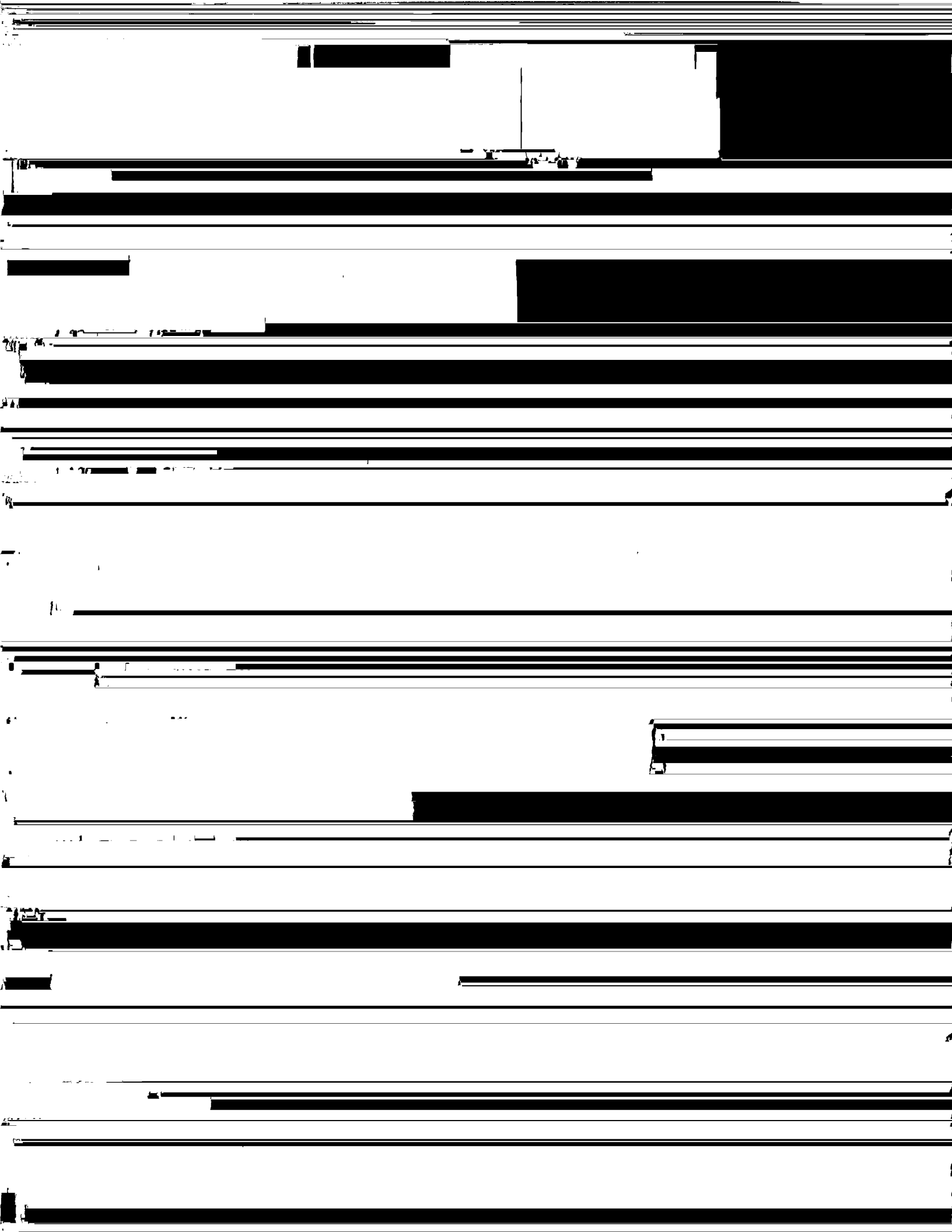
Department of Government

Degree Requirements

The degree of Master of Arts in Government requires the completion of 30 semester hours of graduate work: 18 in Government, six in thesis, and six in an approved minor

536—Seminar in International Politics. The study in depth of selected problems in

533—*Readings in European History Before 1815.* Course may be repeated for a maxi-



Department of Mathematics

The Department of Mathematics offers a program of study leading to the Master of Science degree in Mathematics (M.S.). Those seeking admission to this program must

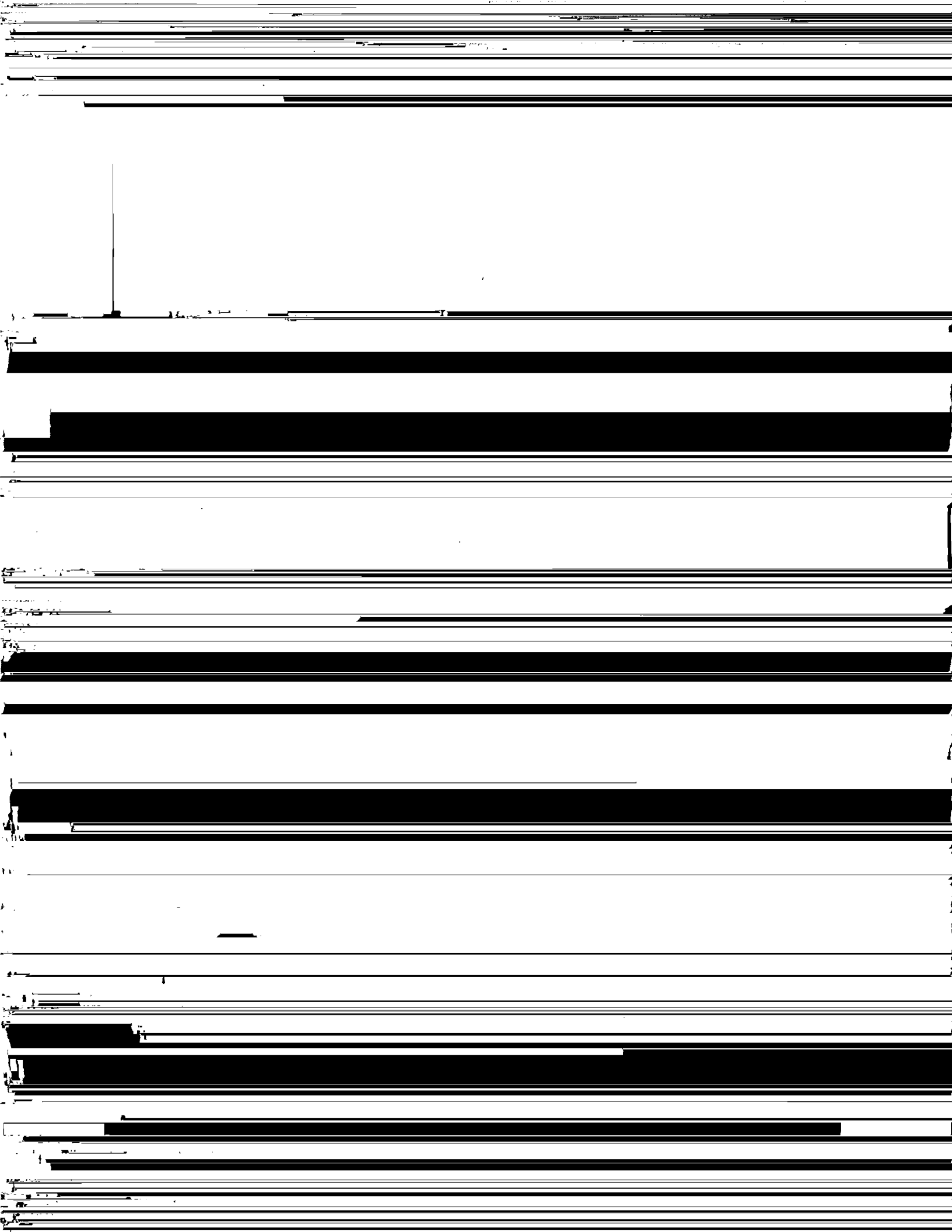
532—Modern Algebra. Numbers, sets, rings, fields, polynomials, and the theory of fields. The theory of fields includes the study of subfields, prime fields, simple field extensions, algebraic field extensions, and Galois fields. Class: 3 hours. Credit: 3 semester hours.

533—Calculus of Variations. The Euler-Lagrange differential equation, necessary conditions of Legendre, Jacobi, and Weierstrass, sufficient conditions for an extreme, brachistrochrome problem, goedesics, surface of revolutions of minimum area, other problems as time permits. Class: 3 hours. Credit: 3 semester hours.

534—Topology. Sets, compact spaces, topological spaces, embedding and metriza-

Below is the approved list of 400G level courses which may be taken with augmented requirements for graduate credit, subject to approval by the graduate advisor. Course descriptions may be found in the Bulletin of Lamar University.

4301G—Advanced Calculus for Engineers

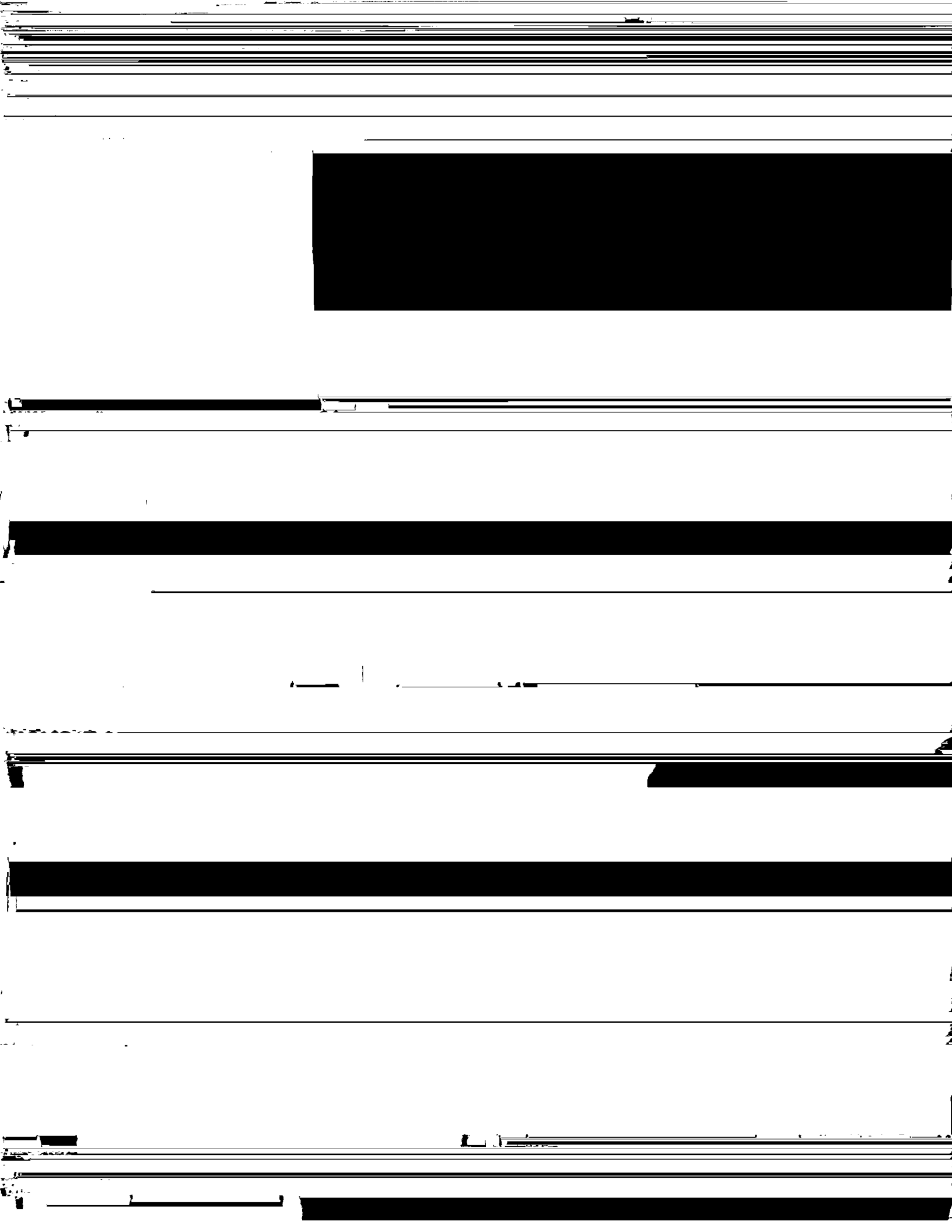


Department of Physics

The Department of Physics offers the following graduate courses to be used primarily to provide an area of specialization for the Master of Education degree in Secondary Education and as support to other advanced degree programs.

GRADUATE FACULTY

Member



GRADUATE FACULTY

Members

Professor Robert F. Achilles
Speech Pathology
Professor W. Brock Brentlinger
Speech
Associate Professor DeWitte T. Holland
Public Address
Professor S. Walker James
Theater

Associate Members

Associate Professor Arnold C. Anderson
Rhetoric
Assistant Professor David Granitz
Speech Audiology
Assistant Professor W. Patrick Harrigan, III
Theater, Oral Interpretation

The graduate student may select his courses in *Speech* from the following list:

515, 525, 535—Individual Study. Independent study of special and/or specific problems in disorders of communication. Credit: 1-3 semester hours.

530—Seminar in Speech Pathology. Study of theory and diagnostic procedures with emphasis on educational and vocational aspects as they relate to speech pathology

539—Seminar in Fine Arts. A study of the areas of art, music and theater. Class: 3 hours. Credit: 3 semester hours.

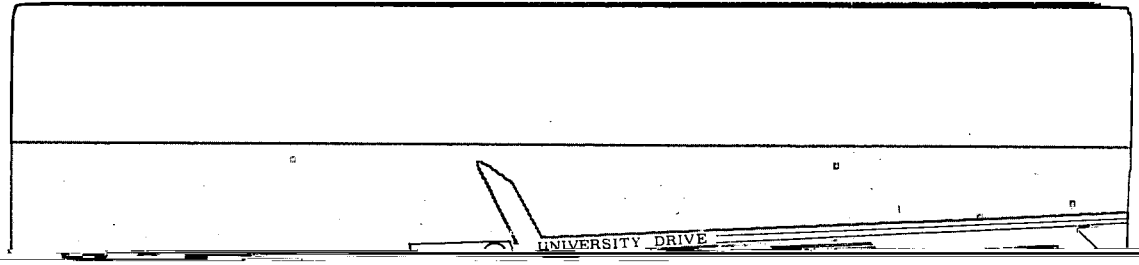
5310—American And British Public Address. A review of selected famous American and British orators and a comprehensive study of their speeches. Class: 3 hours. Credit: 3 semester hours.

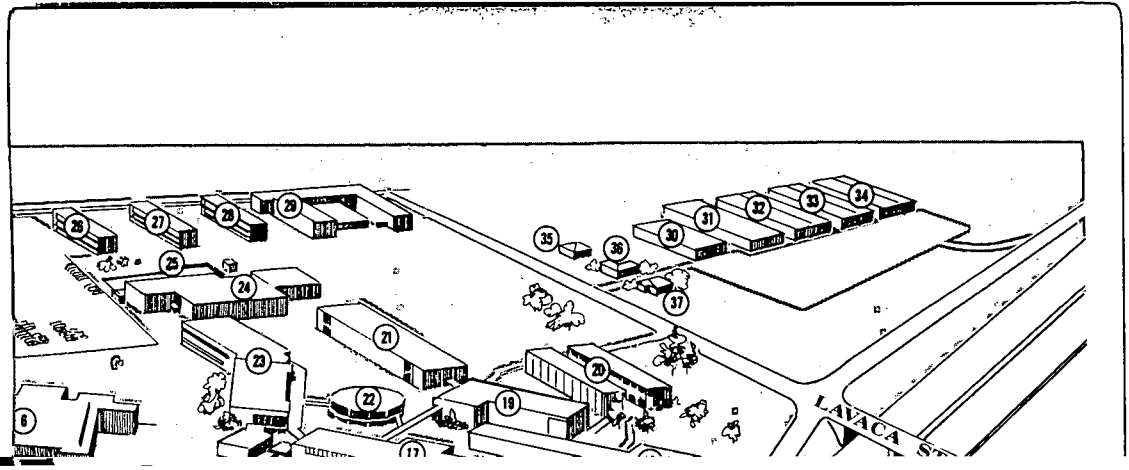
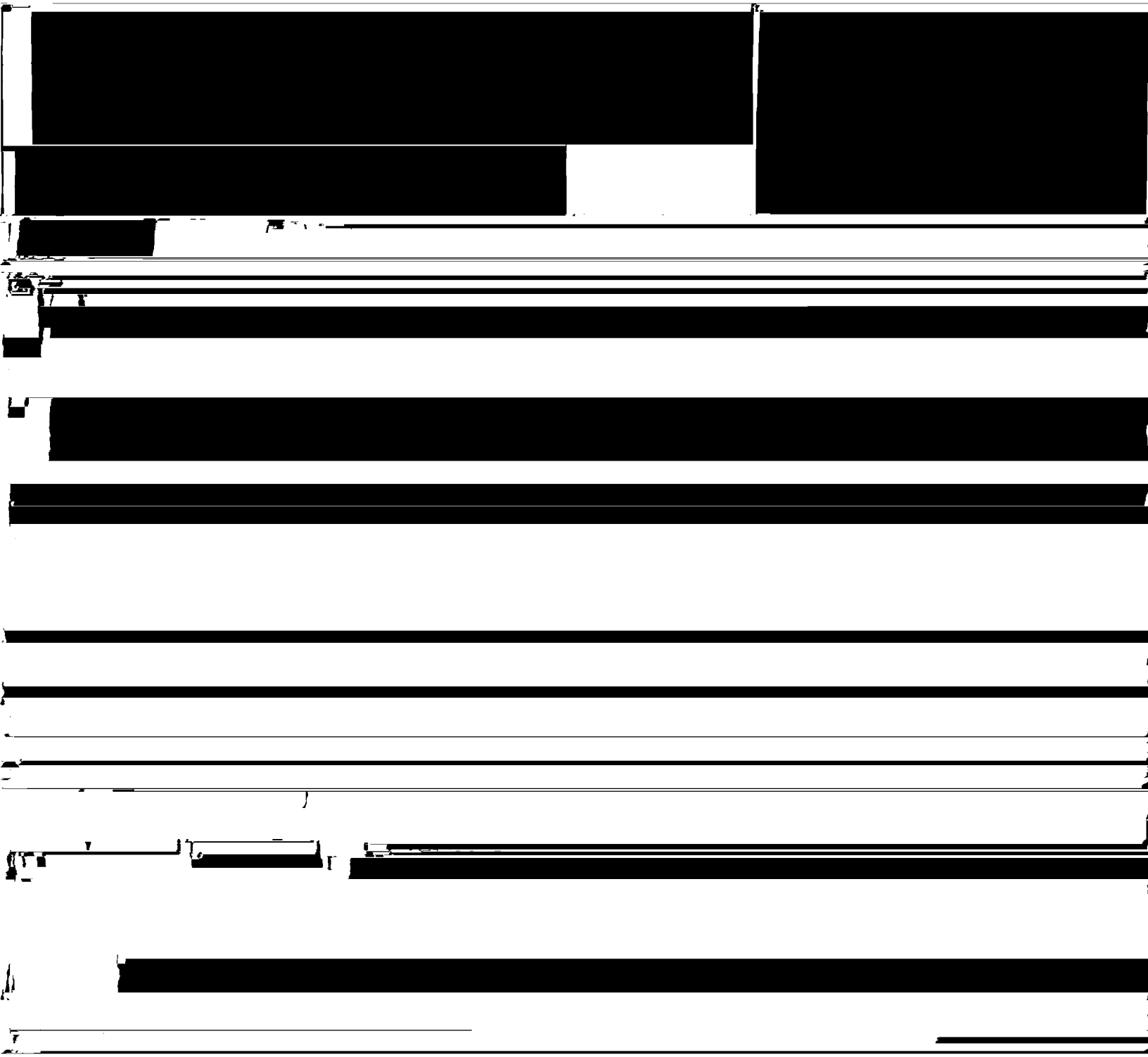
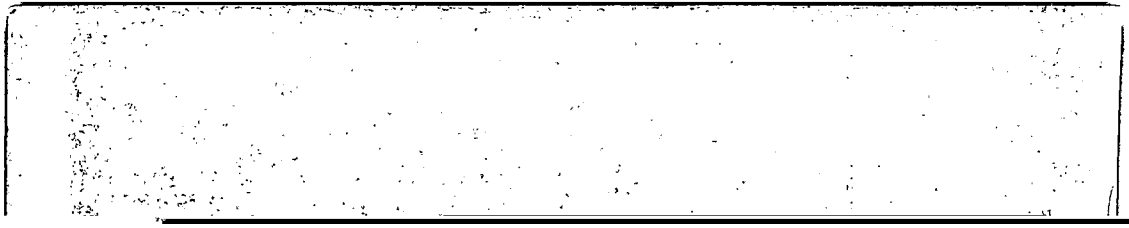
5315—Advanced Argumentation And Debate. The application of the principles of logic and motivation to the argumentative process. A review of the place of forensics in the high

436G—History of Theater
437G—Directing Secondary School Theater Activities
438G—Directing Secondary School Speech Activities
439G—Rhetoric and Public Address
4311G—Theory and Practice of Scenery and Lighting Design
4312G—Costume Design and Construction
4324G—Advanced Audiology
4325G—Instrumentation

Index

Absentia, Graduation in 40
Accreditation 22
Health Center 23
History 89-91
Housing 28


UNIVERSITY DRIVE


LAVACA