

Colorado

Colorado State College

COLLEGE CATALOGS
College

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BULLETIN

1960-61 General Catalog

Colorado State College

Greeley, Colorado

REFERENCE

Reference Res
- Kept at Desk

HOW TO APPLY FOR ADMISSION

Undergraduate Students Attending College for the First Time

1. Get an Application for Admission form from your high school principal. Out-of-state students write to Registrar, Colorado State College.
2. Fill in Part I of the Application for Admission and have the high school office complete the form and send it to the Registrar. Applications may be filed any time after the close of the first semester of the senior year in high school and not later than 30 days prior to registration day.
3. Upon receipt of the application, the college will inform you of your admission status and will send you a form for reserving a room in a college residence hall.
4. Additional information regarding the freshman orientation program, health examination, etc., will be mailed prior to the opening of college in September.

Undergraduate Transfer Students

1. File with the Registrar, Colorado State College: a. An Application for Admission including high school record; b. An official transcript of all credits earned at other colleges or universities; c. An application for transfer of credit; d. A report of health examination.

In order to insure admission, these materials should be sent to the Registrar's Office 30 days in advance of the quarter for which the transfer student wishes to enroll. Necessary forms may be obtained from the Registrar and the letter of inquiry should state specifically that the student is a transfer student.

Effective Dates of this Catalog—The effective dates of this catalog are from September 1, 1960, to August 31, 1961. This includes Fall, Winter and Spring Quarters, 1960-61, and the 1961 Summer Sessions. Students enrolling for the first time at the college during these effective dates will follow the rules and regulations in this catalog until their graduation.

Graduate Students (Please see pages 49-63).

—PLEASE NOTE—

Students must retain until their graduation the copy of the catalog that they receive.

Please bring this catalog with you when you register. Only one catalog will be given to a student.



BULLETIN

Colorado State College

1960-61

GENERAL CATALOG

Greeley, Colorado

Bulletin Series LX • March, 1960 • Number 6

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State Institutions of Higher Learning

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COLORADO SCHOOL OF MINES, Golden

JOHN W VANDERWILT, *President*

COLORADO STATE COLLEGE, Greeley

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CHARLES DALE REA, *President*

UNIVERSITY OF COLORADO, Boulder

QUIGG NEWTON, *President*

WESTERN STATE COLLEGE, Gunnison

PETER P. MICKELSON, *President*

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1961

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College Calendar

● Fall Quarter 1960

- September 14 - - - New undergraduate students report
- September 19 - - - Registration for all students
- September 20 - - - Classes begin
- September 24 (noon)- Last day for late registration and
addition of courses.
- *October 20-21 - - - C.E.A. Convention
- October 21-22 - - - Homecoming
- November 23-24-25 - Thanksgiving Vacation
(starts noon, Nov. 23)
- December 7 - - - Commencement
- December 8-9 - - - Final Examinations

● Winter Quarter 1961

- January 2 - - - - Registration for all students
- January 3 - - - - Classes begin
- January 7 (noon) - Last day for late registration and
addition of courses.
- January 30-31 - - - Mid-Year Education Conference
- March 10 - - - - Commencement
- March 13-14 - - - Final Examinations

● Spring Quarter 1961

- March 20 - - - - Registration for all students
- March 21 - - - - Classes begin
- March 25 (noon) - Last day for late registration and
addition of courses.
- May 26 - - - - - Insignia Day
- May 28 - - - - - Baccalaureate
- May 29 - - - - - Senior Ceremonial
- May 30 - - - - - Memorial Day holiday
- *May 31 - - - - - Commencement
- June 1-2 - - - - - Final Examinations

● Summer Sessions 1961

- June 12-22 - - - - Pre-Session
- June 24 - - - - - Registration for Summer Session
- June 26 - - - - - Classes begin
- July 4 - - - - - Independence Day holiday
- *August 17 - - - - Commencement
- August 18 - - - - Final Examinations

*This date is subject to change pending future action by the Board of Trustees upon the recommendation of the Faculty and Student Council.

Administration

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The first figure in parentheses shows the date of first appointment, the second figure is the date when the present term expires.

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DANIEL ALBERT SEAGER, A.M.....	<i>Librarian</i>
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TONY DALE VAUGHAN, Ed.D.....	<i>Director, Special Education School</i>

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ALLAN RAY ELLIOTT, Ed.D.....	<i>Dean of Men</i>
RALPH EDWIN HARGROVE, A.M.....	<i>Director, Student Housing</i>
FRANK PIERCE LAKIN, A.M.....	<i>Admissions Counselor</i>
GEORGE FRANKLIN SANDERSON, A.M.....	<i>Registrar</i>
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CLYDE L. CREE, A.M.....	<i>Chief Accountant</i>
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JOHN C. McCLURE, A.B.....	<i>Residence Halls Manager</i>
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DAVE REICHERT, A.B.....	<i>Assistant Superintendent of Buildings and Grounds</i>
ELIZABETH A. TRAINER.....	<i>Manager, College Bookstore</i>
NORA WHITE, A.M.....	<i>Dietitian, Men's Residence Halls</i>

Instructional Staff

As of March, 1960

WALLACE AAS, A.B., Moorhead State Teachers College; A.M., Colorado State College; Graduate Student, Colorado State University.

Assistant Professor of Physics

VERNE AHLBERG, A.B., Macalaster College; A.M., Columbia University.

Associate Professor of Speech

WILBUR E. AHLVERS, A.B., A.M., Colorado State College.

Instructor in Art

DEAN ALEXANDER ARNOLD, A.B., Eastern Illinois State College; A.M., Stanford University; Ph.D., University of Chicago.

Associate Professor of History

CLARENCE THEODORE BAAB, A.B., A.M., Colorado State College; Ed.D., Pennsylvania State University.

Professor of Industrial Arts

RICHARD F. BALL, B.S., State Teachers College, Pennsylvania; A.M., Colorado State College.

Associate Professor of Art

LYLE BERDETT BEAVER, A.B., Luther College; A.M., Colorado State College; Graduate Student, Indiana University.

Assistant Professor of Education

JOHN ADDIS BEEL, B.S., Montana State College; Ph.D., Iowa State College of Agriculture and Mechanic Arts.

Professor of Chemistry

On leave Summer 1961.

MARY A. BEHLING, B.S., Illinois State Normal University; A.M., Colorado State College.

Assistant Professor of Physical Education

TEKLA KATHERINE BEKKEDAL, A.B., Lawrence College; M.S. in Library Science, University of Wisconsin.

Instructor in Library Science — Acquisitions Librarian

WARREN PAUL BEST, A.B., Nebraska State Teachers College, Wayne; A.M., Colorado State College.

Assistant Professor of Physical Education

WATSON BIDWELL, B.F.A., University of Denver; A.M., Colorado State College.

Assistant Professor of Arts

HOWARD LAWRENCE BLANCHARD, A.B., Iowa State Teachers College; M.S., Drake University; Ed.D., Colorado State College.

Assistant Professor of Education

On leave Fall, Winter and Spring Quarters, 1960-61.

ROBERT L. BLASI, B.S., Colorado State University; A.M., Colorado State College.

Associate Professor of Physical Education

GEORGE A. BOECK, A.B., Iowa State Teachers College; A.M., State University of Iowa; Graduate Student, State University of Iowa.

Assistant Professor of History

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Assistant Professor of Library Science—Catalog Librarian

JOHN EDGAR BOTHELL, A.B., A.M., Colorado State College; Ed.D., George Peabody College for Teachers.

Professor of Education

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Assistant Professor of Audio-Visual Education

EDITH BELLE BRUMMER, A.B., University of Colorado; B.S. in Library Science, University of Denver.

Laboratory School Librarian

JOHN WILLIAM BUNN, B.S., A.M., University of Kansas.

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Professor of English

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Professor of Physical Education

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SHIRLEY MAY CARRIAR, B.Ed., Superior State College; A.M., University of Wisconsin; Ed.D., Colorado State College.

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Assistant Professor of Industrial Arts

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AMOS L. CLAYBAUGH, B.E., Wisconsin State College; A.M., University of Wisconsin; Graduate Student, Colorado State College.

Instructor in Audio-Visual Education

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Assistant Professor of Educational Psychology and Guidance

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Assistant Professor of Business Education

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Professor of English

VINCENT A. CYPHERS, B.S., Pacific University; A.M., Colorado State College; Graduate Student, Colorado State College.

Associate Professor of Physical Education

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Associate Professor of Health and Physical Education

RAYMOND LAWRENCE DEBOER, A.B., Augustana College; A.M., Ed.D., University of Denver.

Professor of Speech

DONALD GILMORE DECKER, B.S., Eastern Michigan College; A.M., Colorado State College; Ph.D., Teachers College, Columbia University; Sc.D. in Education, Eastern Michigan College.

Professor of Science Education

JULE STATTON DOUBENMIER, A.B., A.M., Colorado State College.

Professor of Physical Education

DALE DYKINS, B.Mus., M.Mus., College of Music, Cincinnati.

Associate Professor of Music

EARL EDWARDS, A.B., Southern Illinois University; A.M., Colorado State College; Graduate Student, Colorado State College.

Instructor in Health Education

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Assistant Professor of Education
On leave Summer Sessions.

ANNE FRY EILAND, B.S., M.S., Texas Woman's University.

Assistant Professor of Home Economics

RICHARD GORDON ELLINGER, A.B., Harvard University; A.M., Colorado State College.

Professor of Art

ALLAN R. ELLIOTT, A.B., Western Michigan University; A.M., Ed.D., Stanford University.

Professor of Educational Psychology and Guidance

WILLIAM RENTZ ERWIN, B.S., M.S., North Texas State College.

Associate Professor of Industrial Arts

MARGARET ELIZABETH EVERETT, B.S., University of Wisconsin; A.M., Ph.D., State University of Iowa.

Professor of Physical Education

ANNA MARIA FAGERLIE, B.S., St. Cloud State College; A.M., Ed.D., Colorado State College.

Assistant Professor of Elementary Education

WILMA ROSE FARRAR, A.B., Colorado State College; A.M., Columbia University.

Associate Professor of Business

FOREST NORLAND FISCH, A.B., A.M., Colorado State College; Graduate Student, George Peabody College for Teachers.

Associate Professor of Mathematics

JOHN HOLMAN FLUKE, B.F.A., Carnegie Institute of Technology; M.Ed., Central Washington College of Education; Graduate Student, Colorado State College.

Instructor in Music

FORREST WILLARD FREASE, A.B., B.S., Kansas State Teachers College, Emporia; A.M., University of Kansas; Ph.D., University of Pennsylvania.

Professor of English

JOHN BARTON FULBRIGHT, A.B., Adams State College; A.M., Ed.D., Colorado State College.

Associate Professor of Education

DON GARLICK, B.F.A., University of Oklahoma; M.Mus., D.M.A., Eastman School of Music, University of Rochester.

Professor of Music

GEORGE GAILIA GATES, A.B., William Jewell College; A.M., University of Missouri; Ed.D., Stanford University.

Professor of English

SAM GERALD GATES, A.B., A.M., Colorado State College; Ed. D., Stanford University.

Professor of Education

JAMES ERNEST GENASCI, B.S., M.S., Springfield College; Graduate Student, Colorado State College.

Instructor in Health and Physical Education

MARVIN EDGAR GEORGE, B.S., Bowling Green State University; A.M., Columbia University.

Associate Professor of Music Education

HARLEY F. GLIDDEN, B.S., Buena Vista College, Iowa; A.M., State University of Iowa; Ph.D., University of Nebraska.

Professor of Science

RUPERT MARTIN GOODBROD, B.F.A., University of Nebraska; A.M., Teachers College, Columbia University.

Associate Professor of Music

WILLIAM T. GOWER, B.Mus., M.Mus., University of Denver; M.F.A., Ph.D., State University of Iowa.

Professor of Music

ROBERT SOMERVILLE GRAHAM, B.A., Queen's University; M.A., Ph.D., University of Colorado.

Assistant Professor of English

LYMAN BECHER GRAYBEAL, B.S., George Peabody College for Teachers; A.M., Columbia University; Ed.D., New York University.

Professor of Education

Will retire September, 1960.

LESLIE K. GRIMES, A.B., A.M., University of Missouri; Ed. D., Washington University.

Visiting Professor

On leave Fall, Winter and Spring Quarters, 1960-61.

JACK HOWARD HAFFERKAMP, B.S., Baldwin-Wallace College; M.S., Bradley University.

Assistant Professor of Mathematics

JOSEPHINE L. HALL, B.S., Northern Illinois University; A.M. in Library Science, University of Denver.

Instructor in Library Science—Curriculum Librarian

RHODA FOSS HALL, B.S., University of Colorado; M.S., Colorado State University.

Associate Professor of Home Economics

JOHN WILLIAM HANCOCK, A.B., State University of Iowa; A.M., Colorado State College.

Professor of Physical Education

ETHEL DORA HANSEN, B.S., M.S., Kansas State Teachers College; Graduate Student, University of Minnesota.

Assistant Professor of Business Education

KENNETH J. HANSEN, A.B., A.M., University of Washington; Ed.D., Columbia University.

Professor of Business Education

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JOHN HARRISON, B.S., California Institute of Technology; M.A., University of Denver; Ph.D., University of Colorado.

Assistant Professor of English

M. LUCILE HARRISON, Ph.B., A.M., University of Chicago.

Professor of Elementary Education

On leave Fall and Spring Quarters, 1960-61.

WILLIAM FREDERICK HARTMAN, A.B., Nebraska State College, Chadron; A.M., Ed.D., Colorado State College.

Professor of English

JESSE GILBERT HAUSE, A.B., A.M., Colorado State College; Graduate Student, University of Colorado.

Associate Professor of Education

RAMON P. HEIMERL, B.S., B.Ed., St. Cloud State College; M.A., Ph.D., University of Minnesota.

Professor of Business Education

WILLIAM C. HEISS, B.S., University of Illinois, M.A., Teachers College, Columbia University.

Assistant Professor of Physical Education

FRED LOUIS HERMAN, A.B., University of Nebraska; A.M., Stanford University.

Professor of Physics

Will retire September, 1960.

ELISABETH L. HETHERINGTON, B.S., Miami University, Oxford, Ohio; M.A., Ohio State University; Graduate Student, Colorado State College.

Instructor in Physical Education

TYRUS HILLWAY, A.B., Willamette University; A.M., University of California; Ph.D., Yale University.

Professor of Education

JOHN HILTNER, A.M., Ph.D., University of Nebraska.

Part-time Instructor in Humanities

KENNETH EDGAR HOGAN, A.B., Ottawa University; A.M., Colorado State College; Graduate Student, Colorado State College.

Instructor in Education

DONALD LEAGUE HOLLEY, A.B., Illinois State Normal University; A.M., University of Illinois; Graduate Student, Colorado State College.

Instructor in English

EDNA MARY HOYDAR, B.Mus., M.Mus., American Conservatory of Music, Chicago.

Associate Professor of Public School Music

BERNICE ELEANOR HUNN, B.S., Kansas State Teachers College, Emporia; A.M., Colorado State College; Graduate Student, Colorado State College.

Instructor in Education

RITA JOHNSON HUTCHERSON, A.B., Culver-Stockton College, Missouri; Certificate in Theory, Yale University School of Music; A.M., Ph.D., State University of Iowa.

Professor of Music

GEORGE ANDREW IRVIN, A.B., A.M., Colorado State College.

Director of Special Services

Will retire September, 1960.

ROBERT S. JAMES, B.M.E., M.Mus., Northwestern University; Graduate Student, Colorado State College.

Instructor in Music

F. MORRIS JOHNSON, A.B., A.M., Colorado State College; Graduate Student, University of Denver.

Associate Professor of Industrial Arts

RALPH EUGENE JOHNSTON, A.B., University of Kansas.

Assistant Professor of English

KENNETH LEE JONES, B.A., Michigan State University; M.A., Northwestern University.

Assistant Professor of Drama

FREDERICK DAVID KAGY, B.S., Northern Illinois University; A.M., Colorado State College; Ed.D., University of Wyoming.

Professor of Industrial Arts

EDWARD JAMES KELLY, A.B., Defiance College, Ohio; A.M., Ph.D., State University of Iowa.

Professor of Elementary Education

LEROY RAYMOND KERNS, A.B., A.M., Colorado State College; Graduate Student, University of Colorado.

Associate Professor of Education

RALPH ROY KING, A.B., A.M., Colorado State College; Ed.D., University of Denver.

Professor of Music

WILLIAM GEORGE KOCH, B.S., University of Notre Dame; A.M., Montana State University; Graduate Student, University of Illinois.

Associate Professor of Chemistry

EUGENE DE VERE KOPLITZ, B.S., Wisconsin State College; M.S., Ph.D., The University of Wisconsin.

Assistant Professor of Educational Psychology and Guidance

WILSON B. KORONA, Maj., U. S. Air Force; A.B., University of Philippines.

Professor of Air Science

KLAAS KRAMER, A.B., Ashland College, Ohio; M.S., Drake University; Ph.D., State University of Iowa.

Assistant Professor of Elementary Education

JACK JOSEPH LABONDE, A.B., A.M., Colorado State College.

Instructor in Health and Physical Education

FRANK PIERCE LAKIN, A.B., A.M., Colorado State College.

Instructor in Education

LEONARD PETER LANDRY, A.B., Dartmouth College; Graduate Student, Colorado State College.

Instructor in English

HELEN LANGWORTHY, A.B., A.M., Ph.D., State University of Iowa.

Professor of Speech and Drama

ROBERT W. LARSON, A.B., A.M., University of Denver; Graduate Student, University of New Mexico.

Assistant Professor of Social Studies

JESSIE EMILY LATHAM, R.N., City Hospital, McKinney, Texas; A.B., A.M., Colorado State College; Graduate Student, George Peabody College for Teachers.

Associate Professor of Health Education

On leave Fall, Winter, and Spring Quarters, 1960-61.

ROSE AILEEN LEACOCK, B.S., A.M., George Peabody College for Teachers.

Associate Professor of Art

ALICE JUANITA LEWIS, B.S., West Texas State, Canyon, Texas; A.M., Ph.D., University of Iowa.

Assistant Professor of Education

VIRGIL Y. LINDAHL, A.B., Nebraska State College, Wayne; A.M., Colorado State College; Graduate Student, University of Colorado.

Associate Professor of Physical Education

LESLIE DAE LINDOU, A.B., University of Minnesota; A.M., University of Wisconsin.

Professor of English

HERBERT M. LINDSTROM, A.B., Augustana College; A.M., State University of Iowa; Ed.D., Colorado State College.

Assistant Professor of Education
On leave Fall, Winter and Spring Quarters, 1960-61.

DONNA J. LONG, B.E., National College of Education; M.A., Ph.D., State University of Iowa.

Assistant Professor of Elementary Education

MARTHA MILNE LOW, A.B., Colorado State College; A.M., University of Denver.

Instructor in Library Science—Assistant Reference Librarian

BETTY LUCILLE LOWRY, A.B., A.M., Colorado State College.

Instructor in Education

J. MAX LUBBERS, A.B., A.M., Colorado State College; Graduate Student, University of Denver.

Associate Professor of Industrial Arts

ARNO HENRY LUKER, LL.B., B.S., University of South Dakota; A.M., Michigan State College; Ed.D., Colorado State College.

Professor of Educational Psychology and Guidance

CAROL L. LUTEX, B.S., M.A., University of Minnesota; Ph.D., Michigan State University.

Associate Professor of Educational Psychology and Guidance

MARVIN L. MANDELL, A.B., University of Rochester; A.M., Columbia University.

Assistant Professor of English

JOHN IRVING MARIANI, A.B., University of Nevada; B.F.A., Chicago Art Institute; A.M., Colorado State College.

Professor of Art

ANTHONY MARIA-ROSSI, B.S., New York University; A.M., Colorado State College.

Associate Professor of Physical Education

DORINNE L. McKEAG, B.A., Ottawa University; M.A., Colorado State College.

Instructor in Education

PAUL GORDON MCKEE, A.B., Monmouth College, Illinois; A.M., Ph.D., State University of Iowa; L.H.D., Monmouth College.

Professor of Elementary Education

On leave Fall, Winter and Spring Quarters, 1960-61.

CHARLES WILLIAM McLAIN, B.S., M.S., Colorado State University; Ed.D., Colorado State College.

Professor of Educational Psychology and Guidance

CARL GUSTAV MELANDER, A.B., B.Mus., Bethany College, Kansas; M.Mus., Chicago Conservatory.

Professor of Music

WILMA BRUN MERLAN, A.B., Colorado State College; A.M., University of Colorado; Graduate Student, Columbia University.

Instructor in Language

FLORENCE MARGUERITE MEYER, A.B., Grinnell College; A.M., University of Chicago.

Associate Professor of English
Will retire September, 1960.

JOHN ROBERT MICKEY, B.S., Kansas State Teachers College, Emporia.

Associate Professor of Anthropology

JAMES BERNARD MILES, A.B., M.S., University of Denver.

Assistant Professor of Audio-Visual Education

JAMES EARL MILLER, A.B., Michigan State University; A.M., Colorado State College.

Assistant Professor of Instrumental Music

On leave 1960-61.

LYDIA A. MILLER, A.B., Colorado State College.

Instructor in Foreign Languages

CLARENCE W. MINKEL, A.B., A.M., Colorado State College; Graduate Student, Syracuse University.

Assistant Professor of Geography

ARTHUR JOHN MITCHELL, A.B., Nebraska State Teachers College, Wayne; A.M., University of Denver; Graduate Student, Colorado State College.

Instructor in Special Education

ESTELL E. MOHR, B.S., Columbia University; A.M., Colorado State College; Ed.D., Stanford University.

Professor of Public School Music

ARTHUR DAVID MOINAT, B.S., Colorado State University; M.S., Oregon State College; Ph.D., University of Illinois.

Professor of Botany

GAYLORD DEAN MORRISON, B.S., Northwest Missouri State College; A.M., University of Nebraska; Professional Diploma, Columbia University; Ed.D., University of Missouri.

Professor of Education

ALVIN O. MOSBO, A.B., Luther College; A.M., State University of Iowa; Ed.D., Colorado State College.

Assistant Professor of Elementary Education

GEORGE WILLIAM MUHLBACH, Captain, U. S. Air Force, B.A. University of Omaha; Graduate Student, Colorado State College.

Assistant Professor of Air Science

JAMES THOMPSON NARDIN, A.B., Harvard University; M.A., Lehigh University; Ph.D., University of Chicago.

Professor of English

On leave Fall, Winter and Spring Quarters, 1960-61.

LOUISE ADELAIDE NEAL, A.B., Friends University, Wichita, Kansas; A.M., University of Colorado; Ed.D., Colorado State College.

Professor of Elementary Science

WILLIAM DONALD NELSEN, A.B., Colorado State College; A.M., Simmons College, Boston; Ph.D., University of Michigan.

Assistant Professor of Business Education

VERA LANORE NEWBURN, B.S., Hastings College, Nebraska; M.S., Columbia University.

Professor of Home Economics

GLENDON P. NIMNIGHT, A.B., A.M., University of Wyoming; Ed.D., Stanford University.

Assistant Professor of Education

HOWARD DANIEL NINEMIRES, A.B., A.M., Colorado State College.

Associate Professor of Education

DWIGHT E. NOFZIGER, B.S. in Ed., Bowling Green State University, Ohio; M.A., Teachers College, Columbia University; Graduate Student, Colorado State College.

Instructor in Music Education

DAVID OLIN OLSON, B.S., Northern Illinois University; A.M., Colorado State College.

Associate Professor of Industrial Arts

On leave Fall, Winter and Spring Quarters, 1960-61.

KENNETH V. OLSON, B.A., Augsburg College; M.A., Ph.D., University of Minnesota.

Assistant Professor of Science Education

ROBERT JAMES OWENS, Major, U. S. Air Force, A.B., M.A., Colorado State College.

Assistant Professor of Air Science

ARTHUR R. PARTRIDGE, A.B., M.S. in Ed., University of Kansas; Ed.D., Stanford University.

Assistant Professor of Education

LEON A. PASTALAN, B.S., State University of New York at Cortland; M.A., Syracuse University; Graduate Student, Syracuse University.

Assistant Professor of Social Science

DALE O. PATTERSON, A.B., A.M., Colorado State College; Ph.D., University of Minnesota.

Professor of Mathematics

RICHARD ADOLPH PERCHLIK, B.S. in Business, B.S. in Education, A.M., Ohio State University; Graduate Student, University of Colorado.

Instructor in Social Studies

On leave 1960-61.

CHARLES E. PERRY, Captain, U. S. Air Force, B.S., Arizona State College.

Assistant Professor of Air Science

KENNETH FREDERICK PERRY, A.B., A.M., Colorado State College; Ph.D., Columbia University.

Professor of Industrial Arts

WILLIAM DAVID PHOENIX, A.B., Regis College; A.M., University of Denver.

*Instructor in Library Science—
Circulation Librarian*

PAULINE CRAIG POGUE, A.B., A.M., Colorado State College.

Associate Professor of History

WILLIAM DEAN POPEJOY, B.S. in Ed., M.S. in Ed., Illinois State Normal University; Ed.D., Colorado State College.

*Assistant Professor of
Mathematics*

FRANCIS RUSHFORD QUAMMEN, A.B., A.M., Colorado State College; Graduate Student, Syracuse University.

Associate Professor of Economics

WILLARD FRANCIS REESE, A.B., United States Merchant Marine Academy; A.M., Colorado State College; Graduate Student, University of Colorado.

Instructor in Education

GUY GENE REIFF, B.S., University of Southern California; A.M., Colorado State College.

*Assistant Professor of Physical
Education*

On leave Fall, Winter and Spring Quarters, 1960-61.

ALBERTA ELOISE REITZE, A.B., Ohio Wesleyan University; M.S., Kansas State College; Graduate Student, Columbia University.

Associate Professor of Education

ARTHUR RAE REYNOLDS, A.B., Nebraska State Teachers College, Peru; A.M., Ph.D., University of Minnesota.

Professor of History

WILLIAM ROBERT ROSS, B.S., M.S., Colorado State University; Ph.D., Colorado State College.

Professor of Education

ARLENE NORMA RUDASH, A.B., University of California, Los Angeles; M.L.S., University of California, Berkeley.

*Instructor in Library Science—
Assistant Reference Librarian*

GEORGE FRANKLIN SANDERSON, A.B., A.M., Colorado State College.

Associate Professor of Education

WALTER ALLEN SCHENKMAN, A.B., Harvard University; Diplome d'Etudes, Paris Conservatory; M.Mus., Yale Music School; Graduate Student, Indiana University.

*Assistant Professor of Music
On leave Summer Sessions.*

CLAUDE MATTHIAS SCHMITZ, A.B., A.M., Colorado State College; Graduate Student, University of Colorado.

*Associate Professor of Music
On leave Fall, Winter and Spring Quarters,
1960-61.*

DANIEL ALBERT SEAGER, A.B., Oklahoma Baptist University, Shawnee; A.B., A.M., University of Oklahoma.

*Associate Professor of Library
Science—Head Librarian*

EDITH MARIE SELBERG, A.B., A.M., Colorado State College.

Associate Professor of Biology

JACK ELDON SEXSON, Captain, U. S. Air Force, A.B., Colorado State College; M.Ed., Trinity University; Graduate Student, Colorado State College.

Instructor of Air Science

JACK SHAW, A.B., University of Saskatchewan; B.Ed., M.Ed., University of Manitoba; Ph.D., University of Minnesota.

*Professor of Educational
Psychology and Guidance*

JOSEPH LESLIE SHOEMAKER, A.B., A.M., Colorado State College; Graduate Student, University of Colorado.

Associate Professor of Science

MARION HARLAN SHOOP, Captain, U. S. Air Force, B.S., Kansas State College; Graduate Student, Colorado State College.

*Assistant Professor of
Air Science*

FRED A. SLOAN, Jr., B.S., M.S., Alabama Polytechnic Institute; Ed.D., George Peabody College for Teachers.

Assistant Professor of Education

MAYNARD N. STAMPER, B.S., Eastern Kentucky State College; A.M., Colorado State College; Ph.D., Ohio State University.

Associate Professor of Zoology

WENDELL R. STARR, A.B., Ottawa University; A.M., University of Colorado; Ph.D., University of Minnesota.

Assistant Professor of English

WESLEY MORGAN STATON, B.S., University of Alabama; Ed.M., Ed.D., Boston University.

Professor of Health Education

DORIS CAROL STEFFY, A.B., Iowa State Teachers College; A.M., State University of Iowa; Graduate Student, Stanford University.

Associate Professor of Physical Education

PAUL H. STONER, B.M., University of Kansas; A.M., University of Iowa; D.M.A., University of Southern California.

Assistant Professor of Music

LEO FRANCIS STORM, B.A., University of Washington; M.A., Edinburgh University, Scotland; Ph.D., University of Washington.

Assistant Professor of English

JUNE ELIZABETH STUCKEY, A.B., B.S. in Ed., Wilmington College; M.A., Ohio State University; Graduate Student, Ohio State University.

Assistant Professor of Education

GERALD E. TANNER, B.A., Colorado State College; Graduate Student, Colorado State College.

Instructor in Education

DAVID Z. TAVEL, A.B., University of Massachusetts; A.M., Clark University; Ed.M., Ed.D., Boston University.

Assistant Professor of Social Studies

BERT O. THOMAS, B.S., M.S., Colorado State University; Ph.D., University of Minnesota.

Assistant Professor of Zoology

VIVIAN B. TILDEN, B.S. in Library Science, St. Louis Library School; A.B., Hastings College; A.M., Colorado State College.

*Instructor in Library Science—
Assistant Catalog Librarian*

OSCAR WILLIAM TOLLEFSON, B.S., Huron College; A.M., Ph.D., University of Colorado.

Professor of Geology

SYLVESTER ROY TOUSSAINT, A.B., Ripon College, Wisconsin; A.M., University of Michigan; Ph.D., University of Wisconsin.

Professor of Speech

ORVEL LEROY TRAINER, B.A., M.A., University of Colorado; Graduate Student, University of Colorado.

Assistant Professor of Economics

GLEN CORBIN TURNER, A.B., Pomona College; M.B.A., Harvard University.

Professor of Business Administration

NANCY VAN ANNE, A.B., Iowa State Teachers College, Cedar Falls; A.M., State University of Iowa.

Associate Professor of Physical Education

On leave 1960-61.

EVERETT HENRY VAN MAANEN, B.S., Northern State Teachers College, Aberdeen, S. D.; M.A., Colorado State College; Ed.D., University of Oregon.

Assistant Professor of Elementary Education

TONY DALE VAUGHAN, A.B., Northeastern State College, Oklahoma; M.Ed., Ed.D., University of Oklahoma.

Associate Professor of Special Education

NICHOLAAS JAN DERK VERSLUYS, A.B., A.M., University of Amsterdam; Ph.D. Rijksuniv Utrecht.

Assistant Professor of Geography

WAYMAN E. WALKER, B.M.E., University of Colorado; M.Mus., University of Southern California.

Associate Professor of Music

LEONARD C. WALSH, B.S., University of Minnesota; M.Ed., University of Oregon; Ed.D. Stanford University.

Associate Professor of Education

ROMAN F. WARMKE, B.S., M.A., University of Minnesota; Graduate Student, University of Minnesota.

Associate Professor of Business Education

On leave Fall Quarter, 1960.

ROLAND CORNELL WATERMAN, B.S., New York State College for Teachers, Albany; A.M., Ed.D., Columbia University.

Professor of Business Education

JOHN STOVER WELLING, B.S., Union College, Schenectady; A.M., Columbia University; Ed.D., New York University.

Professor of Social Studies

LEE R. WEST, B.S., Southwestern State Teachers College, Oklahoma; A.M., George Peabody College for Teachers.

Professor of Geography

WESLEY THEODORE WESTRUM, B.S., University of North Dakota; A.M., Colorado State College; Graduate Student, Colorado State College.

Instructor in Music

GLADYS PUGH WHORTON, B.A., Cleveland College; M.A., Ph.D., Western Reserve University, Cleveland.

Assistant Professor of Special Education

R. TED WILL, A.B., Colorado State College; M.B.A., Stanford University; Graduate Student, University of Colorado.

Assistant Professor of Business Education

HERMAN MASTIN WILLIAMS, A.B., Randolph-Macon College; M.A., Ed. D., University of Virginia.

Associate Professor of Education

GLORIA R. WILLIAMSON, A.B., A.M., Los Angeles State College.

Instructor in Physical Education

DALE EARL WOERNER, B.S., Kansas State College; M.S., Ph.D., University of Illinois.

Assistant Professor of Chemistry

WELBY B. WOLFE, A.B., A.M., Colorado State College; Ed.D., Teacher's College, Columbia University.

Professor of Art

ERNEST JUDSON WOODS, A.B., Ottawa University; A.M., Colorado State College.

Assistant Professor of Education

ALICE MARY YETKA, B.S., University of Minnesota; A.M., Colorado State College; Graduate Student, Colorado State College.

Instructor in Business Education

PETER W. ZEHNA, A.B., A.M., Colorado State College; A.M., University of Kansas; Ph.D., Stanford University.

Assistant Professor of Mathematics

LESLIE DAY ZELENY, B.S., University of Minnesota; A.M., Columbia University; Ph.D., University of Minnesota.

Professor of Sociology

DONALD E. ZIMMERMAN, B.S. in Ed., M.S., Kansas State Teachers College, Emporia.

Instructor in English

EARL THEODORE ZWETSCHKE, B.S., Washington University; M.P.S., University of Colorado; Ph.D., University of Minnesota.

Associate Professor of Psychology

Laboratory School Staff

Ernest Horn Elementary School — College High School

LEROY RAYMOND KERNS, A.M., Director of the Laboratory School; Chairman of Curriculum Development for the Laboratory School; Supervisor and Instructor in Secondary School Science.

PAULINE CRAIG POGUE, A.M., Secondary School Principal; Chairman of Curriculum Development for the Secondary School; Supervisor of Guidance.

EVERETT VAN MAANEN, Ed.D., Elementary School Principal; Chairman of Curriculum Development for the Elementary School.

WILBUR E. AHLVERS, A.M., Supervisor and Instructor in Mechanical Drawing and Drafting.

CLARENCE THEODORE BAAB, Ed.D., Supervisor and Instructor in Mechanical Drawing and Drafting.

EDITH BELLE BRUMMER, B.S., Elementary and Secondary School Librarian.

MARTIN CANDELARIA, Ed.D., Supervisor and Instructor in Elementary School Spanish.

SHIRLEY MAY CARRIAR, A.M., Supervisor and Instructor in Secondary School English.

FERN DELLA CAZEL, A.M., Nursery School and Kindergarten Supervisor and Instructor.

DONALD WAYNE CHALOUPKA, Ed.D., Chairman of Curriculum Development in Secondary School Social Studies; Supervisor and Instructor in Secondary School Social Studies and Physical Education.

ANNA MARIA FAGERLIE, Ed.D., Third Grade Supervisor and Instructor.

MARVIN EDGAR GEORGE, A.M., Chairman of Curriculum Development of Elementary and Secondary School Music; Supervisor and Instructor in Vocal Music.

RHODA FOSS HALL, M.S., Chairman of Curriculum Development in Home Economics; Supervisor and Instructor in Home Economics.

MARJORIE LOU HARKNESS, A.M., Fourth Grade Supervisor and Instructor.

JAMES WILLIAM HEDDENS, A.M., Supervisor and Instructor in Secondary School Mathematics and Science.

DONALD LEAGUE HOLLEY, A.M., Supervisor and Instructor in Secondary School Speech and English.

EDNA MARY HOYDAR, M.Mus., Primary School Music Supervisor and Instructor.

BERNICE ELEANOR HUNN, A.M., Second Grade Supervisor and Instructor.

ROBERT S. JAMES, M.Mus., Supervisor and Instructor in Secondary School Instrumental Music.

KENNETH LEE JONES, A.M., Chairman of Curriculum Development in Dramatics; Supervisor and Instructor in Dramatics.

FREDERICK DAVID KAGY, Ed.D., Supervisor and Instructor in Graphic Arts.

RALPH ROY KING, Ed.D., Supervisor and Instructor in Instrumental Music.

LEONARD PETER LANDRY, A.B., Chairman of Curriculum Development in Secondary School English; Supervisor and Instructor in Secondary School English.

JOHN LOY LIONBERGER, B.A., Supervisor and Instructor in Secondary School Science.

BETTY LUCILLE LOWRY, A.M., First Grade Supervisor and Instructor.

DORINNE L. MCKEAG, A.B., Supervisor and Instructor in Junior High School Social Studies.

HAL STONEHAM MCMURROUGH, A.B., Supervisor and Instructor in Secondary School English and Journalism.

WILMA BRUN MERLAN, A.M., Supervisor and Instructor in Latin.

LYDIA ALLES MILLER, A.B., Chairman of Curriculum Development in Secondary School Foreign Language; Supervisor and Instructor in Secondary School Foreign Language.

LOUISE ADELAIDE NEAL, Ed.D., Chairman of Curriculum Development in Elementary School Science; Supervisor and Instructor in Elementary School Science.

DWIGHT E. NOFZIGER, A.M., Supervisor and Instructor in Intermediate School and Secondary School Vocal Music.

DAVID OLIN OLSON, A.M., Chairman of Curriculum Development in the Arts; Supervisor and Instructor in Industrial Arts.

RICHARD ADOLPH PERCHLIK, A.M., Supervisor and Instructor in Secondary School Social Studies and Physical Education.

GUY GENE REIFF, A.M., Director of Athletics; Supervisor and Instructor of Health and Boys' Physical Education in Intermediate Grades and High School.

ALBERTA ELOISE REITZE, M.S., Nursery School Supervisor and Instructor.

JOSEPH LESLIE SHOEMAKER, A.M., Chairman of Curriculum Development in Secondary School Science; Supervisor and Instructor in Secondary School Science.

WAYNE H. SMITH, A.M., Fifth Grade Supervisor and Instructor.

DORIS CAROL STEFFY, A.M., Supervisor and Instructor of Girls' Health and Physical Education for the Intermediate Grades and High School.

PAUL H. STONER, D.M.A., Supervisor and Instructor in Instrumental Music in Elementary Grades.

ROMAN F. WARMKE, A.M., Supervisor and Instructor in Secondary School Retail Merchandising.

ROLAND CORNELL WATERMAN, Ed.D., Supervisor and Instructor in Secondary School Bookkeeping.

ERNEST JUDSON WOODS, A.M., Chairman of Curriculum Development in Secondary School Mathematics; Supervisor and Instructor in Secondary School Mathematics.

ALICE MARY YETKA, A.M., Chairman of Curriculum Development in Business Education; Supervisor and Instructor in Secondary School Short-hand and Typing.

Emeritus Faculty

WINFIELD DOCKERY ARMENTROUT, A.B., A.M., Ed.D., LL.D. Appointed 1920; Emeritus since 1955.

Vice President Emeritus

GRACE MAE BAKER, B.Art Ed., B.S., A.M. Appointed, 1917; Emeritus since 1941.

Professor Emeritus of Art

SAMUEL CLAY BEDINGER, A.B., A.M. Appointed, 1922; Emeritus since 1948.

Assistant Professor Emeritus of Business Education

RALPH THOMAS BISHOP, A.B., A.M. Appointed, 1917; Emeritus since 1955.

Professor Emeritus of Industrial Arts

MARGARET ELIZABETH BRYSON, A.B., A.M., M.D. Appointed, 1921; Emeritus since 1942.

Professor Emeritus of Health Education

LUCY ROSENQUIST CHAMBERLAIN, Ph.B., A.M. Appointed, 1923; Emeritus since 1949.

Associate Professor Emeritus of Elementary Education

AMBROSE OWEN COLVIN, B.C.S., A.M., Ph.D. Appointed, 1918; Emeritus since 1947.

Professor Emeritus of Business Education

ETHAN ALLEN CROSS, A.B., A.M., Ph.D., Litt.D., L.H.D., Appointed 1906; Emeritus since 1940.

Professor Emeritus of English

OLIVER MORTON DICKERSON, A.B., A.M., Ph.D. Appointed, 1923; Emeritus since 1940.

Professor Emeritus of History and Political Science

CATHERINE CRATES GIBERT, A.B., A.M. Appointed, 1922; Emeritus since 1959.

Professor Emeritus of Foreign Languages

HENRY TRUSTMAN GINSBURG, B.Mus., A.B., A.M., D.Mus. Appointed, 1931; Emeritus since 1958.

Professor Emeritus of Music

EZRA CLARENCE HARRAH, A.B., A.M., Ph.D. Appointed, 1926; Emeritus since 1954.

Professor Emeritus of Zoology

JOSEPHINE MARY HAWES, A.B., A.M., Appointed, 1917; Emeritus since 1946.

Professor Emeritus of English

JACOB DANIEL HEILMAN, A.B., Ph.D. Appointed, 1908; Emeritus since 1942.

Professor Emeritus of Educational Psychology

HELEN BARBARA HUNT, B.S., M.S. Appointed, 1949; Emeritus since 1959.

Associate Professor Emeritus of Home Economics

FRANK COVERT JEAN, A.B., A.M., Ph.D., Sc.D. Appointed, 1921; Emeritus since 1945.

Professor Emeritus of Biology

ELIZABETH HAYS KENDEL, A.B.,
L.H.D. Appointed, 1893; Emeritus
since 1938.

*Associate Professor Emeritus of
Mathematics*

WINFIELD LEROY KNIES, A.B.,
M.B.A. Appointed, 1922; Emeritus
since 1957.

*Associate Professor Emeritus
of Business Education*

ELIZABETH LEHR, B.A., A.M. Ap-
pointed, 1926; Emeritus since 1959.

*Associate Professor Emeritus
of Elementary Education*

ANNIE MARGARET McCOWEN, A.B.,
B.S., A.M., Ph.D. Appointed, 1921;
Emeritus since 1958.

*Professor Emeritus of
Elementary Education*

ANNA EVELYN NEWMAN, Ph.B., Ph.M.
Ph.D. Appointed, 1920; Emeritus
since 1946.

Professor Emeritus of English

ORA BROOKS PEAKE, A.B., A.M., Ph.D.
Appointed, 1919; Emeritus since
1949.

Professor Emeritus of History

EARL UNDERWOOD RUGG, A.B., A.M.,
Ph.D. Appointed 1923; Emeritus
since 1957.

Professor Emeritus of Education

OLIVER LEONARD TROXEL, B.S., A.M.,
Ph.D. Appointed, 1929. Emeritus
since 1958.

Professor Emeritus of Education

FLOSS ANN TURNER, Ph.B., A.M. Ap-
pointed, 1925; Emeritus since 1954.

*Associate Professor Emeritus of
Elementary Education*

FREDERICK LAMSON WHITNEY, Ph.B.,
Ed.B., A.M., Ph.D. Appointed, 1924;
Emeritus since 1938.

Professor Emeritus of Education

EDITH GALE WIEBKING, A.B., A.M.,
Appointed, 1918; Emeritus since
1949.

*Professor Emeritus of Home
Economics*

GRACE HANNAH WILSON, A.B., A.M.,
Ph.D. Appointed, 1915; Emeritus
since 1953.

Professor Emeritus of Education

ARTHUR FRANKLIN ZIMMERMAN, A.B.,
A.M., B.D., Ph.D. Appointed, 1928;
Emeritus since 1958.

Professor Emeritus of History

General Information

History — The history of Colorado State College closely parallels much of the growth and development of the Greeley Union Colony. The Colony was organized in 1870 by Nathan C. Meeker, traveler and newspaper correspondent, and was named after Horace Greeley.

When the Colony was eighteen years old, a movement was started to establish a normal school to supply teachers for the community and state. The law creating the State Normal School was signed on April 1, 1889, and the cornerstone of the first building was laid on June 13, 1890. Classes were started October 6, 1890, with a staff of the principal, four instructors, and ninety-six students. Certificates were granted upon the completion of the two-year course.

In 1911 the name was changed to Colorado State Teachers College by the state legislature. The college was then offering four years of undergraduate work and granting the Bachelor of Arts degree. In 1935 the name of Colorado State College of Education was adopted to recognize the fully developed graduate program which was started in 1913. Early in 1957 the state legislature approved shortening the name to Colorado State College, effective October, 1957.

Government — The college is under the management of a Board of Trustees of seven members. All are appointed by the Governor of the State. Money for the maintenance of the college comes from special appropriations made by the legislature.

Location — Colorado State College is in Greeley, a city of 20,354 population (1950 census). Greeley is 52 miles north of Denver and 52 miles south of Cheyenne, Wyoming. Estes Park is 51 miles west. The Rocky Mountains, which provide much recreation for students, are 30 miles west of the campus. The elevation of Greeley is 4,648 feet. The ideal climate is invigorating and conducive to study.

Laboratory Schools — The college maintains a Laboratory School which includes Ernest Horn Elementary School with nursery school, kindergarten and the first six grades, and College High School, with grades seven to twelve. For information on tuition and fees, the Director of the Laboratory School should be consulted.

The campus Special Education school, a cooperative project of the Greeley public schools and the college, is a laboratory school enrolling physically handicapped and mentally retarded children. College students observe and do student teaching in this school.

Campus — The city campus, in a beautiful residential area of Greeley, has three parts—the main campus, the East campus and a new West campus.

The main campus is the site of all academic buildings, the student union, and the women's residence halls. Two blocks east of the main campus is the East campus, site of the men's residence halls, baseball and football facilities of Jackson Field, and a portion of college housing for students. Land for the new 148-acre West campus was acquired in 1956. The physical plant of the city campus includes thirty-four buildings exclusive of college-owned fraternity and sorority houses.

The mountain campus, acquired late in 1956, includes 80 acres of land nearly adjacent to Estes Park village amid some of the most spectacular scenery in the Rockies. The mountain campus is being developed as a site for educational conferences and meetings and as a base for field trips.

Library Facilities — The college library has over 150,000 volumes catalogued, over 600 different periodicals, plus many government documents, pamphlets, and reference materials. The library is in Carter Hall, a modern building with many comfortable, well-lighted study areas. The book stacks are open to all students and other patrons.

Public Services — Coordinated through the Department of Public Relations, the college provides several types of services for students, schools, and communities. The services include off-campus classes and correspondence study, placement of graduates in teaching positions, scheduling staff members and students for speaking engagements, and assisting schools and communities with their education problems.

Off-Campus Instruction—One of the many services the college provides for Colorado is an extensive program of off-campus instruction. Two types of programs are offered to help certify and upgrade more teachers for the public schools. These two programs are (1) off-campus courses and (2) correspondence study.

A list of classes to be offered off-campus may be obtained from the Department of Public Relations. All inquiries concerning off-campus instruction should be addressed to the Director of Public Relations. All off-campus courses offered by Colorado State College are taught by members of the faculty.

All undergraduate students who wish to qualify for a Bachelor of Arts degree must complete a minimum of forty-five quarter hours of credit on the campus in Greeley during at least three quarters of residence. Course work taken off-campus can not be counted in meeting the minimum 45 quarter hours of credit which must be earned in courses on the campus. It is not necessary for these quarters to be consecutive.

Some of the off-campus courses may be taken for either undergraduate or graduate credit. Courses numbered 200 and above may be taken for graduate credit at Colorado State College, providing the student has the academic qualifications to take graduate work, has been admitted to the graduate division, and the course has the approval of the major adviser. A maximum of eight quarter hours of graduate credit may be taken in off-campus courses to apply toward a Master of Arts degree at Colorado State College.

Undergraduate students who plan to obtain a degree from Colorado State College should write or consult the Registrar, Department of Student Personnel, about formal enrollment and degree classification, unless done previously, as directed below:

- (1) Former students who have not been able to complete requirements for the Bachelor of Arts degree shall request a statement of degree standing under current catalog requirements. Any credit earned in other colleges or universities or in the armed services should be presented for evaluation;
- (2) A special or transfer student will present transcripts from colleges or universities formerly attended for evaluation by the Registrar in cooperation with the student's major adviser.

The Registrar, the Dean of the Graduate Division, and major advisers gladly help students in planning their programs but it is the responsibility of each student to know the requirements of the program he is taking.

Off-campus instruction centers are set up in various sections of the state. Members of the faculty establish their residences in these centers during the school year and teach courses in the centers and adjacent areas. The faculty members return to teach on the campus for Summer Sessions. In addition to this part of the program, other members of the faculty who live in Greeley go to nearby communities to teach classes at night and on Saturdays.

Courses that require laboratory facilities and extensive library materials are not offered off-campus. Courses that utilize a minimum of teaching aids and equipment are offered if the materials can be transported easily.

Correspondence Courses — For the convenience of students who cannot meet for off-campus classes, the college provides correspondence courses. Each course contains study units which are completed by the student before he takes a final examination. The student's responses are made in writing to the teacher who reads and grades the papers. In all cases, the teachers who read and grade the correspondence papers are members of the faculty. There is no graduate credit for correspondence courses. The Correspondence Courses Bulletin may be obtained from the Department of Public Relations.

The college will accept forty-five quarter hours of correspondence credit toward an undergraduate degree, providing the courses fit into the student's program. The 45 quarter hour allowance toward a degree includes Colorado State College correspondence courses, Colorado State College extension courses taken before January 1, 1948, and all correspondence and extension courses from other colleges and universities.

Appointments — The Office of Appointments of the Colorado State College offers its services to present and former students of this college who are seeking positions. It also offers its services to the principals, superintendents, and Boards of Education who are seeking employees for their school systems.

The purpose of the office is to bring the students of this college and the employment authorities together either by exchange of correspondence or by personal interview. The functions of the Office of Appointments are (1) to arrange for meetings of interested parties, (2) to furnish appropriate information to both parties, and (3) to give such assistance to both parties as is possible and ethical.

The only charge for this service is a small one to cover, in part, the cost of assembling data concerning the applicant. The fee is paid when the applicant enrolls.

Student Personnel

All out-of-class activities and services for resident students are supervised by the Department of Student Personnel under the direction of the Dean of Students. These include pre-college counseling, application for admission, veterans counseling, matriculation and guidance examinations, registration for courses, record keeping, application for graduation, certification, transcription of records, student health services, counseling of a personal nature as well as academic guidance, living accommodations, recreational and social events, student employment, and student loans and scholarships.

Counseling Services—Counseling services are available for all students of the college. These services provide an opportunity for them to receive help in determining and understanding their aptitudes and interests in order that they might select a course of study in keeping with their needs and desires. Help is also available to assist students who are having difficulty with course work or who present other types of problems which arise in college life, such as those of a personal nature involving social situations, health, finances, or housing.

Student Residence Halls—Room and board accommodations are available in college residence halls for undergraduate or graduate students on a contract basis for the full school year consisting of the fall, winter and spring quarters. No student

is permitted to break this contract unless he or she is leaving the campus. Residence in these halls provides social, educational, and cultural advantages to the student. Each hall is under the supervision of a director chosen for his or her experience and interest in the personal and social growth of college-age students.

Residence Regulations—All women students are to be in their places of residence by 10:30 p.m. on all nights preceding a school day, and by 1:00 a.m. on Friday and Saturday nights. When residence halls are occupied during vacation, the hours will be 11:00 p.m. Sunday through Friday and 1:00 a.m. Saturday night. The night on which the college closes for a vacation will not be a one o'clock night unless there is an organized party sponsored by the Associated Students. Quiet hours in all residence halls, college-owned houses, and college-approved private homes are: Monday through Friday, 8:00 a.m. to noon and 1:00 p.m. to 4:00 p.m.; Monday through Thursday, after 8:00 p.m.; Friday and Saturday, after 11:00 p.m.; Sunday, 3:30 p.m. to 5:00 p.m. and after 8:00 p.m.

Linen and Bedding—Students provide their own personal linens and towels. The college furnishes and launders college-owned bedding in the residence halls and college-owned houses.

Dining Rooms—Students living in the residence halls have their meals in the dining rooms maintained on the campus. Rates are established on a room-and-board basis. These rates may vary slightly depending upon location and size of the room as well as upon any marked fluctuations in food costs. Such changes are authorized by the Board of Trustees. Notification of changes in rates is given at least thirty days in advance of any school quarter.

Application for Rooms—Application blanks may be obtained from the Department of Student Personnel. The completed application for housing, with a \$25.00 deposit, must be returned to the Director of Student Housing, Department of Student Personnel. If the applicant desires to cancel his application for Fall Quarter accommodations and notifies the Director of Student Housing on or before August 15th, \$10.00 of the deposit will be refunded. If the applicant attends Colorado State College, he or she may not cancel the contract for accommodations in the residence halls after August 15th. If the applicant does not attend Colorado State College and cancels after August 15th, the college will retain the entire \$25.00 deposit. These same regulations apply to reservations for other quarters, except that the cancellation date is 20 days prior to the beginning of that quarter.

If all provisions of the contract have been complied with and no damage charges have been assessed, the \$25.00 deposit will be refunded at the end of the school year. If the resident

elects to re-apply for a room in the residence halls for the following year, his deposit will not be refunded but will be transferred to the renewal application. Except for Greeley residents, first-year freshmen students are required to live in the residence halls.

Off-Campus Housing—The Director of Student Housing has also examined and approved many Greeley homes near the campus, and will assist students who are not required to live in residence halls to obtain rooms in the private houses. Boarding places near the college are available for students living off-campus. All undergraduate students are required to live either in the college residence halls or in approved private residences.

Jackson Field Housing Project—A limited number of temporary apartment units are available for students with families. These furnished apartments are provided with heat, electricity, and water. The housing project is located on college-owned property, near the men's residence halls and the stadium, Jackson Field. Applications for rentals are made to the Director of Student Housing, Department of Student Personnel. A \$25 deposit must accompany an application for Jackson Field Housing.

Student Employment—A large number of the students of the college have part-time employment on-campus to help defray their expenses. Other jobs are available in Greeley business places and homes. Recommendations for college employment are an important part of a student's record. Each student employed on the college campus must maintain a satisfactory grade average. A cumulative and a quarter average of "C" (3.0) are satisfactory for this purpose. Inquiries concerning employment should be addressed to the Director of Student Aid, Department of Student Personnel.

Citizenship Standards—A student is expected to be a good citizen of his college community. When a student shows evidence of lacking the essential qualities of scholarship, health, and character, he may be suspended by the college.

Health Service—The Student Health Service offers extensive dispensary facilities with graduate nurses in attendance at all times during the college day, and with physicians available at specific office hours.

Allocation of \$5.00 of the quarterly fees paid by each student provides adequate off-campus health services. Students are given a health certificate with the names, addresses and telephone numbers of all physicians in Greeley. A student may go to the office of any Greeley physician, or he may call the physician to his residence. Fees and costs of certain operations are paid for from this health fund.

Student Activities

Student Government—Student government and the direction of student affairs on the campus are administered by the members of the Associated Students, under the guidance of the Department of Student Personnel. The Associated Students elect in the Spring quarter a student governing body, the Student Council. The Student Council serves in the succeeding school year.

Membership in the Associated Students is required of all students who are registered for more than six credit hours. A membership fee is collected at the time of registration. This fee entitles members to attend, without additional charge, cultural, social, dramatic, and athletic programs. Members also receive a copy of each issue of the *Mirror*, student newspaper, and the *Cache la Poudre*, student annual. Facilities of the Student Union building are available to members.

Student Activities—All campus organizations must apply each year to the Student Council and the Department of Student Personnel for charter approval. When organizations are recognized by the Student Council, the Department of Student Personnel, and the President of the College, facilities of the campus, set aside for such purposes, may be used by the groups. The Director of Student Activities is in charge of the Student Union and student activities.

Forensics—Students have an opportunity to participate in a comprehensive program of intercollegiate debate and public discussion. The college is a member of the Colorado-Wyoming Intercollegiate Forensic League and has the Colorado Beta chapter of Pi Kappa Delta, national forensic society. Under faculty supervision, students participate in regional and national programs.

Publications—Students interested in journalism have an opportunity for expression in two campus publications owned and published by the students. The *Mirror* is a weekly newspaper, and the *Cache la Poudre* is the student annual. The students also edit and publish a magazine.

Little Theatre of the Rockies—The Little Theatre of the Rockies presents several outstanding plays during the school year. Students may try out for parts in the plays or work as stage carpenters, electricians, property managers, etc.

Athletics—The athletic activities of the college are governed by a Board of Athletic Control on which both students and faculty are represented. Intercollegiate and intramural contests are systematically carried on in football, basketball, baseball, field and track, wrestling, swimming, gymnastics, and tennis. Gunter Hall, the large modern and thoroughly equipped gymnasium, and Jackson Field, athletic stadium, afford ample facilities for the major outdoor and indoor sports.

Colorado State College is a member of the Rocky Mountain Faculty Athletic Conference, and is bound by the rules of that body in governing eligibility of athletes.

The Women's Athletic Association has charge of and encourages intramural participation in athletic sports suitable for women, including swimming, basketball, softball, volleyball, tennis, track and field, archery, and fencing.

Religious Program—The college emphasizes the value of a religious life and encourages students to attend churches of their choice. Greeley is noted as a city of churches. Most denominations are represented by an active church. There are several student religious groups on the campus. The Religious Council, composed of student representatives of all religious groups on the campus, is the coordinating agency for campus religious activities. Several religious organizations have student centers near the campus.

Music Organizations—The music program is an important part of college life. Qualified students are eligible to participate in the choirs, the college bands, the college orchestra, and the Greeley Philharmonic Orchestra. During the school year, the Division of Music presents special programs.

Associated Women Students—All women students are members of the Associated Women Students. This organization supports the many projects which further the growth and betterment of the college. The organization is very active in assuring a friendly welcome to each new woman student.

Clubs and Honorary Fraternities—Each division of the college sponsors honorary fraternities and clubs of various types which are of interest to students majoring or minoring in the division. These organizations provide an opportunity for students and faculty members to become better acquainted.

Qualified students are eligible to become members of numerous honorary and service fraternities. Among those open to both men and women are: Alpha Psi Omega (national drama fraternity); Delta Phi Delta (national art fraternity); Lambda Sigma Tau (national science fraternity); Orchesis (modern dance organization); Phi Sigma Iota (national foreign language fraternity); Phi Alpha Theta (national history fraternity); Phi Mu Alpha Sinfonia (national music fraternity); Pi Kappa Delta (national forensic fraternity); Pi Omega Pi (national business education fraternity); Kappa Delta Pi (national education fraternity).

The following honorary and service fraternities are for men: Alpha Phi Omega (national scouting service fraternity); Blue Key (national service fraternity); Kappa Kappa Psi (national band fraternity); Phi Delta Kappa (national professional education fraternity); Intercollegiate Knights (national service organization); Arnold Air Society (honorary AFROTC society).

Women's honorary and service organizations include: Tau Beta Sigma (national band fraternity for women); Delta Omicron (national music fraternity for women); Gold Key (senior women's honor society); Pi Lambda Theta (national education fraternity for women); Spur (national service organization for women).

Social Organizations—At Colorado State College there are seven social fraternities and seven sororities. The fraternities are Acacia, Alpha Kappa Lambda, Sigma Chi, Sigma Phi Epsilon, Tau Kappa Epsilon, Theta Xi, and Theta Chi Colony. The seven sororities are Alpha Sigma Alpha, Alpha Sigma Tau, Delta Zeta, Pi Kappa Sigma, Sigma Kappa, Sigma Sigma Sigma, and Alpha Gamma Delta. All of the sororities are affiliated with National Panhellenic Conference.

No student is eligible for pledging until he or she has been enrolled at Colorado State College for one quarter.

Panhellenic Council, composed of two representatives from each sorority, and the Inter-Fraternity Council, composed of three representatives from each fraternity, function as coordinating agencies for their respective groups, governing pledging and initiation and maintaining a high plane of inter-sorority and inter-fraternity relations on the campus. The councils sponsor several awards to the member organizations including awards for high scholastic achievement.

The Independent Students Association maintains an active program of social events on the campus.

Scholarships, Awards and Loan Funds

Several scholarships and awards have been established for students of the college. To keep scholarships in force, the recipient must maintain a minimum grade average as follows: freshmen, 3.0; sophomores, 3.5; juniors and seniors, 3.75. Unless otherwise noted, applications for scholarships should be made to the Dean of Students, Department of Student Personnel.

“Around the World with Dobby” Scholarship—The “Around the World with Dobby” scholarship was established by members of “Dobby’s Gang” in memory of former Colorado State College students who lost their lives in World War II.

The Scholarship Committee of the college selects the man or woman to receive the scholarship for each school year. The scholarship was made possible by a fund of unsolicited contributions from members and friends of “Dobby’s Gang.”

Associated Students Scholarship — The Associated Students of Colorado State College provide an annual scholarship to be awarded to a citizen of the United States resident in Colorado who is a member of a racial minority group. This scholarship covers the cost of tuition for the academic year and

may be renewed for four years provided the recipient remains in college each quarter of the academic year and maintains a satisfactory grade average. Applications for the scholarship should be addressed to the Dean of Students.

The Miriam Mitchell Memorial Scholarship Fund—The Miriam Mitchell Memorial Scholarship Fund was established by the will of Miriam Mitchell to assist deserving young women who are resident citizens of the State of Colorado to defray the expenses of attending Colorado State College. A number of scholarships are awarded annually from this fund, and a recipient may qualify for each year she is attending college as a full-time undergraduate student. Normally a scholarship is not awarded before the sophomore year. The scholarship generally provides a sum equal to tuition, fees, and books for the academic year. Inquiries may be addressed to the Dean of Students.

The Helene Zahnen Memorial Award—A fund was established as a memorial to Helene Zahnen, who was a professor of Foreign Languages and teacher in College High School for many years. The fund provides for some financial assistance to a deserving graduating senior of College High School who enters Colorado State College to study to become a teacher of foreign languages. Applications should be made to the Principal of College High School.

The Harry V. Kepner Memorial Award—A fund has been established as a memorial to their father by the family of Harry V. Kepner, a former member of the Board of Trustees of the College and former Principal of West High School, Denver. The fund provides financial assistance to a graduating senior of West High School who enters Colorado State College to become a teacher. Applications should be made to the Principal, West High School, Denver.

The Emily C. Newman Scholarship Fund—This fund was established by the will of Emily C. Newman, pioneer homesteader and teacher of northern Colorado. It provides financial assistance to well-qualified and deserving freshman applicants from Weld and Morgan counties, Colorado. Inquiry should be addressed to the Dean of Students.

The Helen MacCracken Scholarship—A fund has been established by Mrs. Helen MacCracken, a former professor of science at Colorado State College, to provide financial aid to a meritorious student enrolled at Colorado State College studying Elementary Science Education. Inquiries should be made of the Chairman, Division of the Sciences, Colorado State College.

Colorado State College Awards — Colorado State College awards a limited number of scholarships and tuition waivers to graduates of Colorado high schools and junior colleges who

deserve such recognition and are especially interested in becoming teachers. These scholarships cover the cost of tuition, but do not include the payment of college fees.

To keep these scholarships and tuition waivers in force the recipient must maintain a grade average meeting the standards established by the Scholarship Committee and must uphold all requirements of good citizenship.

Applications for these awards must be received by the Dean of Students not later than April 1.

Joint Honor Scholarships—Cooperating with other state institutions of higher learning in Colorado, the college honors Joint Honor Scholarships which are awarded at high school commencements to outstanding students under a program arranged by the participating institutions. The Joint Honor Scholarship covers the cost of tuition. College and Associated Students' fees must be paid by the student. A high school senior is advised to inquire of the principal or superintendent of his school concerning the eligibility standards for such scholarships.

Associated Students Publications Scholarships—Two scholarships in the form of one-year tuition awards have been established by the Associated Students of Colorado State College. One will be granted to an outstanding freshman or sophomore member of the *Mirror* or *Cache la Poudre* staffs and one to a high school senior who has done outstanding work as a staff member of one of the high school publications. Inquiries should be addressed to the Dean of Students for referral to the Associated Students Committee on Publications prior to April 1.

The Soroptimist Club of Greeley Scholarship—An annual scholarship of \$150 has been established by the Soroptimist Club of Greeley to be awarded to a young woman enrolled at Colorado State College in a teacher certification program with a major in Special Education. The scholarship is good for one year and will normally be granted to a junior or senior student. Inquiry should be addressed to the Dean of Students.

The House of Neighborly Service Scholarship—The House of Neighborly Service Fund has been established as a trust fund, the income of which is to be used to assist a Spanish-American student at Colorado State College, who is a resident of Weld County. The scholarship will be granted on an annual basis as income from the trust fund is available. Inquiry should be addressed to the Dean of Students.

National Defense Education Act Student Loan Program—Colorado State College has been approved as a participant in the Student Loan Program authorized by the Federal Government. Loans are available to outstanding high school seniors and college students in need of financial assistance to be able to attend college. Repayment provisions are especially favorable to graduates in teacher-education who enter the teaching

profession. Address inquiries to the Director of Financial Aid, Colorado State College.

Loan Funds—Sixteen college loan funds with aggregate resources of over \$131,000 are available to help worthy students. Applications for loans may be made to the Committee on Loans and Scholarships, Department of Student Personnel.

All loans are completed on personal, unsecured notes bearing a low rate of interest. Over-all living costs, job prospects, potential earning power, and the credit experience of the student are carefully considered by the committee. Over six thousand students have utilized the loan funds since 1911.

The funds are: William Porter Herrick Memorial, Sarah Platt Decker Memorial, Rotary, WTK, Fortnightly Music Club, Kendel Music, Altrusa, Shyn, Sigma Upsilon Graduate, Panhellenic, High School Loan Fund, Merriman Memorial Fund, Andrew P. Bengtson and Gertrude Bengtson Memorial, Phi Delta Kappa, Associated Students, and Alfred L. and Carena L. Jex Fund.

Expenses

Quarterly Tuition and Fees

Fall, Winter and Spring quarters—

REQUIRED OF ALL STUDENTS enrolled for programs of more than 6 credit hours:

	<i>In-State Students</i> Each Quarter	<i>Out-of-State</i> <i>Students*</i> Each Quarter
Tuition - - - - -	\$35.00	\$80.00
Registration Fee - - - - -	3.50	3.50
College Service Fee - - - - -	10.00	10.00
Associated Students' Fee** - - - - -	10.00	10.00
	\$58.50	\$103.50

* Out-of-state status is determined in accordance with rulings established by the Board of Trustees and reviewed by a college committee. The decisions of the committee are final. Declarations of intent to be or become a resident of Colorado have no bearing on the status conferred on the student to whom the out-of-state fee applies.

** This fee entitles the student to Associated Students' identification card or a quarterly validation of an existing card. The charge finances attendance at athletic events, concerts, and college plays, and provides a subscription to the Mirror (student newspaper) and the Cache La Poudre (student annual).

Required tuition and fees for the academic year—Fall, Winter and Spring quarters—for in-state students total \$175.50 and for out-of-state students, \$310.50. Tuition for limited programs for one through six hours is charged at the rate of \$6.00 per credit hour and fees listed above are not assessed thereon. The College Service Fee includes a Health Fee of \$5.00.

Summer Sessions Tuition and Fees

<i>Credit for which Registered</i>	<i>In-State Students</i>	<i>Out-of-State Students</i>
1-3	\$18.00	\$25.00
4	24.00	33.00
5-8	38.00	65.00
9-12	45.00	90.00

During Summer Sessions a Registration Fee (\$3.50) and College Service Fee (\$7.50) are assessed on all programs of five or more credit hours of enrollment.

All other fees applicable in the Fall, Winter, and Spring quarters of the regular academic year listed in this section apply to Summer Session enrollment except the Associated Students' Fee.

Incidental Tuition and Fees

These are applicable each quarter in the terms of individual registrations:

Late registration (assessed for enrollment permitted after the scheduled hours of registration any quarter) - - - - -	\$ 5.00
Special examination (assessed when permission is granted to take an examination at a time other than the hour scheduled) - - -	2.00
Late application for graduation - - - - -	2.00
Change of program (assessed for each program change permitted after an announced grace period) - - - - -	1.00
Extension of credit by installments, as arranged	
Tuition and fees - - - - -	1.00
Board and Room - - - - -	1.50
(Tuition and fees, charges for board and room or apartment rentals are payable at registration in every quarter. For just cause, postponements may be arranged on application.)	
Physical education activity course deposit (Men) refunded when student completes activity course requirements - - - - -	5.00
Proficiency examination - - - - -	2.00
Tuition for on-campus limited course programs (registration for credit or audit one through six hours) per credit hour - - - -	6.00
Tuition for correspondence course study, per credit hour - - - -	6.00
Tuition for group instruction (residence credit earned in the off-campus teaching centers) per credit hour - - - - -	6.00
Official transcript of college credits, per copy - - - - -	1.00
ID Card replacement - - - - -	1.00
Certified Statement of Issuance of Life Teaching Certificate - - -	1.00
Certified Statement of Issuance of Diploma - - - - -	1.00
Office of Appointments Charges (The placement year begins October 1 and ends September 30).	
Initial enrollment fee before Dec. 15 - - - - -	5.00
Initial enrollment fee after Dec. 15 - - - - -	3.00
Re-enrollment fee - - - - -	5.00
Seventh and subsequent copies of credentials sent out, per copy - - - - -	1.00
Summarization of high school & college credits on request	2.00
First and subsequent copies of credentials sent out during a placement year when applicant has not re-enrolled, per copy - - - - -	1.00
Telephone calls, telegrams and postage for sending credentials by air mail or special delivery - - actual cost	

Incidental Fees, Graduate Study Fees, Tuition for Individual Music Instruction—Assessable in the regular academic year, are also applicable in the Summer Sessions.

Fees Added for Graduate Study

Doctoral Research Studies* (assessed to each doctoral applicant in successive quarters of enrollment up to six quarters) for a total (minimum-maximum) of \$300.00. This fee is assessed as follows:

First quarter	\$25.00
Second quarter	25.00
Third quarter	50.00
Fourth quarter	75.00
Fifth quarter	75.00
Sixth quarter	50.00

Doctoral Research Abstract Publication (assessed in the sixth quarter of doctoral studies) 40.00

Specialist in Education Research Studies* (assessed to each applicant in successive quarters of enrollment up to three quarters) for a total (minimum-maximum) of \$75.00

Ed.S. Research Studies fee per quarter 25.00

* (Enrollees in the doctoral or the specialist program pay all tuition and fees applicable to each regularly registered student in each quarter of attendance plus the applicable studies fees listed above.)

These fees are applicable for any program originating with or after fall quarter, 1957. All candidates whose program originated prior to fall quarter 1957 will meet the fee schedules stated in the catalog under which they were admitted. Any unclassified graduate student who possesses the Master of Arts degree and who subsequent to enrollment elects to enter the Specialist in Education degree program or the Doctor of Education degree program will be charged research studies fees commensurate with the amount of unclassified credit made applicable to the advanced degree program entered.

Binding and mailing Master's Thesis, Practicum or Doctoral Research Study (4 copies required)	10.00
Comprehensive Examination Retesting Fee	5.00
Remedial Writing Laboratory (required of a student assigned to the laboratory following tests)	10.00
Advanced Test in Education and Psychology and Area Test in Social Science, Natural Science, and Humanities (for doctoral students)	10.00

Fees for Music Instruction

Individual music lessons per quarter	
Music majors	\$12.50
Other college students	15.00
Persons not enrolled in the college or affiliated schools	25.00
Individual music lessons, less than full quarter	
Violin, piano, organ, strings, each	3.00
Other instruments, each	2.50
Practice room per quarter (includes piano rental)	5.00
Orchestra or band instrument rental per quarter	5.00
Organ rental per quarter	10.00

Policy on Refunds

Partial refunds of tuition or fees on withdrawal are made under Board of Trustees' rulings as follows:

Full, Winter or Spring quarters—

1. Within the first week following registration—all tuition, no fees.
2. Within the second week following registration—three-fourths tuition, no fees.
3. Within the third week following registration—one-half tuition, no fees.
4. Within the fourth week following registration—one-fourth tuition, no fees.

Summer Sessions—

1. Pre-Session course, no refund at any time.
 2. Within the first week of the eight weeks' regular session, three-fourths tuition, no fees.
 3. Within the second week, regular session, one-half tuition, no fees.
 4. Within the third week, regular session, one-fourth tuition, no fees.
- Consult the residence halls' lease for terms covering refunds on board and room. Due to possible fluctuation in food prices or the cost of service, the Board of Trustees reserves the right to alter residence hall charges on thirty days' notice prior to the registration date for any college quarter.

Fees for College Residence Halls**Fall, Winter and Spring quarters—**

	<i>Per Quarter</i>	
	<i>Minimum</i>	<i>Maximum</i>
Men's residence halls - - - - -	205.00	\$225.00
Women's residence halls - - - - -	195.00	218.00
Board (limited to students not resident in college halls, 14 meals per week, excluding breakfast) - - - - -	135.00	135.00
Rooms, college-owned fraternity or sorority houses (restricted to organization members) - - - - -	60.00	60.00
	<i>Per Month</i>	
Apartments, Jackson Village (rentals restricted to married students) - - - - -	36.00	46.00

Students are expected to provide their own personal linens and towels. The college will furnish and launder college-owned sheets, pillowcases and blankets in the residence halls, and in college-owned fraternity and sorority houses. Applications for rooms should be addressed to the Housing Office, Department of Student Personnel. To confirm a reservation a \$25.00 deposit must be advanced by the student. If the student desires to cancel a reservation, \$10.00 will be refunded if notification is given at least thirty days prior to the quarter for which accommodations have been reserved except for Fall Quarter when notification must be given by August 15. After the student enters a residence the deposit will be held to his credit as a protection against penalty charges and property damage. On withdrawal of the student the deposit, less any deduction assessed, will be returned. If the academic year's contract is broken during or at the close of any quarter \$15.00 of the deposit shall be forfeited.

Summer Sessions—

	<i>Pre-Session</i>	<i>Regular Session</i>	
	<i>(2 weeks)</i>	<i>(8 weeks)</i>	
		<i>Minimum</i>	<i>Maximum</i>
Board and Room*			
Men's residence halls - - - - -	\$46.00	\$165.00	\$185.00
Women's residence halls - - - - -	46.00	170.00	180.00
Board only (limited to students not resident in college halls, 14 meals per week, excluding breakfast) - - - - -		100.00	100.00
Board only in Cross Hall (2 meals per day, excluding breakfast, limited to students not resident in college halls)	30.00		
Rooms, college-owned houses*			
Single woman - - - - -	14.00	50.00	55.00
Married couples (rate for 2 persons) - - - - -	30.00	110.00	110.00
Families (space reserved only on a basis of ten weeks' registration) - - - - -	40.00	155.00	155.00

*The college will furnish and launder college-owned sheets, pillowcases and blankets.

Academic Information

Functions of the College—The primary purpose of Colorado State College is to prepare teachers for many kinds of educational positions. The administration and faculty expect each student to maintain a high standard of scholarship and professional development, and to be thoroughly prepared at the time of his graduation. Four programs are offered—an undergraduate program and three graduate programs.

Accreditation—Colorado State College is accredited by the North Central Association of Colleges and Secondary Schools as an institution conferring the Bachelor of Arts, the Master of Arts, the Specialist in Education and the Doctor of Education degrees. The college is accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary teachers, secondary teachers, and school service personnel, with the Doctor's degree as the highest degree approved. The college is a member of the American Association of Colleges for Teacher Education, the American Council on Education, and the Midwest Conference on Graduate Study and Research.

Undergraduate Program — Bachelor of Arts (A.B.) degree with a teaching certificate. A permanent certificate to teach in Colorado accompanies the degree. It is possible for a student to take courses leading to the Bachelor of Arts (A.B.) degree in liberal arts. This degree does not carry a teaching certificate. Less than ten per cent of the students are enrolled in this program.

Graduate Program—1. Master of Arts (A.M.) degree. This degree is offered in seven divisions of the college. A permanent certificate to teach in Colorado accompanies the degree.

2. Specialist in Education (Ed.S) degree. This degree is granted for one year of work beyond the Master of Arts.

3. Doctor of Education (Ed.D.) degree. This degree is based upon advanced study, successful experience, and research.

Quarter System—The school year is divided into three quarters: Fall, Winter, and Spring. The Summer Sessions are held in June, July, and August.

Quarter Hour—All credit toward graduation is computed in "quarter hours." The term "quarter hour" means a subject given one day a week through a quarter of approximately eleven weeks.

Course Numbers—The course numbers are divided into five groups: (a) 1 to 99 are primarily for first and second-year students; (b) 100 to 199 are primarily for third and fourth-

year students; (c) 200 to 299 are primarily for fourth-year and graduate students; (d) 300 to 399 are for graduate students; (e) 400 to 499 are primarily for candidates for the doctorate.

Effective Dates of this Catalog—The effective dates of this catalog are from September 1, 1960, to August 31, 1961. This includes Fall, Winter and Spring Quarters, 1960-61, and the 1961 Summer Sessions. Students enrolling for the first time at the college during these effective dates will follow the rules and regulations in this catalog until their graduation.

Majors and Minors—Majors and minors which may be obtained at the college are listed at the beginning of each division's section of this catalog. Specific courses required for the majors and minors are then listed in each division.

Program Planning—Programs outlining specific courses must be planned with the student's adviser. The student is responsible for arranging the necessary meetings with his adviser and for getting course program approval from his adviser.

Graduate Study—Detailed information about the graduate program may be obtained from the graduate section in this catalog. Course work will be outlined by the student's major professor.

Course Descriptions—Courses offered in each division are listed and described. The course description gives the course number and title, the quarter hours of credit offered, an explanation of the content of the course, and other information needed for planning a program.

Credit Offered—Courses offered during Fall, Winter and Spring quarters will carry the credit designated in the catalog. The same course offerings scheduled in the Summer Sessions may vary in the amount of credit offered.

Double-listed Courses—Courses marked with a section mark (§) are listed in more than one division or in different departments within a division. Credit may be obtained in the division in which the course is listed, or in the division or department within a division indicated in parentheses following the course title. The student is responsible for indicating the division or department within a division in which credit is to apply.

Schedule of Classes—The college publishes a Schedule of Classes Bulletin which lists courses being offered during Fall, Winter and Spring Quarters. Courses offered in the Summer Sessions are listed in the Summer Bulletin.

Transcripts—Students may obtain official transcripts of their college records on payment of \$1.00 for each copy, payable in advance. Requests should be addressed to the Recorder, Department of Student Personnel.

Education of War Service Personnel—All ex-service personnel entering under the veterans' education and training program must present a Certificate of Eligibility valid for use at Colorado State College. This certificate must be presented at the time of registration. Further information concerning enrollment may be obtained from the Director of Student Aid, Department of Student Personnel.

Proficiency Examinations — Proficiency examinations in certain required courses in a student's major or minor may be taken to determine whether or not the student may be excused from these courses and in some cases to provide evidence for certification.

Undergraduate Course Load — The normal undergraduate course load for a quarter is 15 hours of academic credit. This does not include the physical education activity courses required in the freshman and sophomore years. Upon the approval of the Dean of Students, a maximum of 18 hours and the required physical education activity or the AFROTC basic course may be taken by students who have a college scholastic average of "B" or better. Extra hours for other students who have good records, but below "B," will be considered individually. All requests for permission to carry more than the normal undergraduate course load must have the approval of the Dean of Students. Graduation requirements and the academic standing of the student will be considered by the Dean of Students in making the decision.

Grading System—Alphabetical grades are used: "A" indicates superior work; "B" indicates work above average; "C" indicates average work; "D" indicates work below average, but passing; "F" indicates failure. Other marks used are: "Inc." incomplete; "W" approved withdrawal; "TF" unapproved withdrawal; "WF" failing at withdrawal; "IF" condition not removed. An "Inc." must be removed before the end of the succeeding quarter in residence to yield credit. Graduating students must remove an "Inc." before the middle of the succeeding quarter. If an incomplete is not removed within one calendar year, it automatically becomes a grade of "IF", except in the case of absence due to military duty.

No student grade, with the exception of an "Inc.," can be changed after the first two weeks of the quarter following the receipt of the original grade by the Recorder.

Computing Grade Averages — Each of the letters of the marking system has a numerical value. The letter "A" has a value of 5 points; "B" a value of 4 points; "C" a value of 3 points; "D" a value of 2 points; and "F" a value of 1 point. If all the student's marks were "C's" they would have a numerical value of 3. If one-half of his marks were "C's" and the other half "D's" the numerical value of his marks would be 2.5.

Scholastic Average—Undergraduate students are expected to maintain the following scholastic averages: 2.5 quarterly and 2.75 cumulatively for the freshman year; 2.75 quarterly, and 3.00 cumulatively by the close of the sophomore year and thereafter. A minimum grade average of 3.00 is required for graduation.

Probationary Status—A student may be admitted on probation if his previous high school or college work does not meet regular admission standards providing other evidence of potential college success is available. An enrolled undergraduate student will be placed on probation by the Dean of Students if he fails to earn in any quarter a grade average above the minimum for his class. If his cumulative grade average for the regular academic year is not above the minimum, he will be placed under academic suspension. The college reserves the right to suspend a student at any time that his record, academic or non-academic, warrants it.

Late Enrollment—No student will be permitted to enroll in a course after the first week of the Fall, Winter, and Spring quarters. No late enrollments will be approved for the two-week Pre-Session. No student may enroll in a course program after the first week of the eight-week Summer Session. These regulations apply to new registrations and to students wishing to change programs.

Attendance at the first day of every class is of utmost importance to the student, the faculty, and the staff; hence all students are expected to register at the designated time and attend the first meeting of each class. Permission to register after the date for registration stated in the college catalog must be obtained from the Dean of Students for undergraduate students or the Dean of the Graduate Division for graduate students. The late registration fee of \$5.00 will be charged all students who register later than the stated catalog date.

If any student thinks that he should be excused from payment of the late fee he should state his reasons either in writing or personally to the Committee on Waivers. This committee meets between 9 and 10 a.m. the Saturday morning of the first week of the quarter in Frasier 201.

Absences—Students must, except for illness, emergency or for such other reasons as the individual instructor concerned considers acceptable, be present at all classes for which they are enrolled. No matter what the reason for the absence, the student is held responsible for doing the full work of the class. No unexcused absence may be made up.

Emergency absences must be cleared through the Department of Student Personnel. Illnesses must be reported to the Health Office by the householder or residence hall director.

Any other reasons necessitating absence must be explained to the instructor concerned, in advance of the proposed absence, and arrangements must be made at that time with the instructor for the work required of the student at the time of his absence. Any student who is absent one or more times during the last week of the quarter will receive an "Incomplete" for the course.

Any instructor who asks that students be excused for field trips or other out-of-class activities under his sponsorship or supervision must send the list of the students to the Dean of Students for his approval at least one week before the absence.

Withdrawal from Class—No withdrawals from class are permitted during the last two weeks of a quarter. When a student registers for a class, he is considered to be a member of that class. If he withdraws, he must have the approval of the Dean of Students.

Final Examinations—A final examination in each class is to be taken by the student on the dates officially announced. Students granted permission to take a final examination at times other than officially scheduled must pay a fee of \$2.00.

The schedule of final examinations will be posted on campus bulletin boards one week before the end of each quarter. Final examinations for Fall, Winter and Spring Quarters are usually scheduled during the last two days of the quarter.

Undergraduate Program

Admission and Retention — Admission and retention policies at Colorado State College are based on the premise that academic ability and achievement, health and physical fitness, personal and social qualities, and speech skills are important factors in the preparation of teachers and students of liberal arts.

Academic Ability and Achievement — A high school graduate or a person holding a high school equivalency certificate of the State Department of Education may be admitted to Colorado State College for a teacher-education program of studies or a liberal arts program if the transcript of his high school record accompanying his application indicates he has the academic ability to do college work successfully. All applications for admission must be received one month prior to registration.

A person 20 years of age or over who is not a high school graduate may be admitted to a teacher-education program or a liberal arts program if the results of a series of entrance examinations taken at least one month prior to the day of registration show he has the academic ability to do college work successfully.

A student transferring from another college may be admitted if he has a satisfactory academic record and is in good standing at the college from which he is transferring. His application must be received one month prior to registration.

After admission to the college, a student shall be expected to maintain both quarterly and cumulative grade point averages as follows: freshmen, 2.5 quarterly, and 2.75 for the year; upperclassmen, 2.75 quarterly and 3.00 cumulatively by the close of the sophomore year and thereafter.

Health—Prior to admission and following a medical examination by a qualified medical practitioner, a student shall submit to the Health Service of the college a health report which is acceptable to the staff of the Health Service indicating the student is in good physical and mental health, has no communicable disease, and has no defects or deficiencies which would hinder satisfactory progress in his chosen curriculum.

Personal and Social Qualities — A student seeking admission to Colorado State College is expected to possess personal and social qualities befitting the curriculum he wishes to study, in keeping with the objectives and traditions of the college, and desirable for the vocation he plans to enter. After admission to the college, he is expected to develop and express these qualities in the classroom, at social and athletic events, in residence, and in community affairs—both on and off campus.

Speech Skills — A student is expected to have such speech skills as will enable him to progress satisfactorily in his chosen curriculum and to perform adequately when in his later vocation.

Matriculation Requirements — A new student, whether freshman or transfer, shall complete during the first quarter on campus the psychological and achievement tests, the speech tests, and the photographic and identification procedures. Guidance in the choice of major and minor fields, selection of courses, need for study skills, and need for counseling stems from the testing program. Matriculation requirements include (1) filing an acceptable application for admission, including high school and previous college record, (2) filing an acceptable health record, (3) completing the psychological and achievement tests, (4) satisfactorily completing the speech tests, and (5) clearing the photographic and identification procedures.

Failure to Meet Admission or Retention Standards — A student who fails to meet any of the above standards may be denied admission to the college and/or his chosen curriculum, or if already admitted he may (1) be asked to change his curriculum, (2) be asked to withdraw, (3) be suspended, or (4) be dismissed.

Faculty Advisers—A first-year student is assigned to a faculty adviser who helps the student plan his program of study. An upperclass student is advised by a faculty member of the student's major division.

Photographs—A college photographer will take pictures of all new students during the first week of registration and matriculation. These pictures are for official files and for the student's identification card. The cost of the photographs is included in the College Service Fee.

Eligibility—Students who do not maintain acceptable grade averages will not be permitted to participate in varsity athletics, dramatics, debate and other extracurricular activities of the college nor are they eligible to be employed on the campus.

Minimum Residence Requirements—At least 45 quarter hours of credit must be earned in courses taken on the campus at Greeley to meet the minimum residence requirement for an undergraduate degree. Course work taken off the campus, both correspondence and off-campus courses, cannot be counted as residence credit in meeting the requirement of 45 quarter hours of credit which must be earned in classes on the Colorado State College Campus.

Transfer Credit—Students graduating from a junior college or transferring two years of college work may have to spend more than two years at Colorado State College to complete the requirements for graduation in certain major fields. If the junior college program corresponds to the requirements of the first two years in the same plan of study at Colorado State College, graduation in two additional years is possible in most cases. Credit earned at a junior college after completion of the sophomore year or beyond 90 quarter hours of credit will not be transferable.

Credits earned at a non-accredited institution are evaluated for transfer on an individual basis. Many specialized courses do not transfer to Colorado State College. College foreign language credit may be transferred provided a student has satisfactorily completed one full year in one language.

Credit and exemptions are allowed for USAFI courses and college level GED tests when satisfactorily completed.

After a veteran has enrolled at Colorado State College, he may present his separation or discharge papers and service school papers to the Registrar. Evaluation and review of these papers will be made by the college's Committee on Military Credit and credit is granted according to recommendations of the American Council on Education.

Correspondence and Extension Courses—Not more than 45 quarter hours of credit taken by correspondence or extension may be applied toward a degree. This maximum of 45 hours

of credit includes Colorado State College correspondence work, Colorado State College extension work taken prior to January 1, 1948 (the college no longer offers extension courses, only off-campus courses taught by regular faculty members), and correspondence and extension work transferred from other colleges and universities. Colorado State College correspondence courses must be completed, graded and recorded 30 days before the end of the quarter in which the student expects to graduate.

Air Force ROTC Requirement—Each male student must complete the required Air Force Reserve Officers Training Corps program unless exempted according to college policy as explained in the Division of Air Science section of this catalog.

Transfer Credit Deadline—Transcripts from other colleges and universities that contain credit necessary for completion of degree requirements at Colorado State College must be received by the Registrar 30 days prior to the date a student expects to graduate.

Application for Graduation — Upon completing 135 quarter hours of course work, students must apply for graduation at the office of the Registrar. Failure to apply at the stated time will result in the assessment of a \$2.00 fee and possible delay of graduation by one quarter for a student. It is the student's obligation to keep the Registrar informed at all times in regard to graduation plans, such as any change in the proposed quarter of graduation after the application was filed.

STUDENT TEACHING

Student teaching assignments are made in the campus Laboratory Schools (Ernest Horn Elementary School, College High School, Special Education School), and in cooperating public schools in the state.

All assignments for student teaching are made with the approval of the Director of Student Teaching. Before assignments are made, students must have: (1) an average grade of "C" in major courses and a cumulative average of 3.00 (Grades are figured on course work taken at Colorado State College only); (2) completed the prerequisite courses in methods and observation; (3) health, personal characteristics, and professional attitudes considered essential for successful teaching.

A student who submits required evidence of at least three years of satisfactory teaching experience may obtain exemption from student teaching. Exemptions are based on quality of teaching experience, kind of school in which experience was obtained, and scholastic standing.

Any student electing more than sixteen hours of student teaching must have the approval of the Director of Student

Teaching. The maximum number of hours of student teaching is twenty.

The minimum requirement for graduation with a teaching certificate is eight quarter hours of student teaching.

Prerequisites for Student Teaching—(1) Completion of at least one quarter as a full-time student on the college campus; (2) completion of the following courses, or their equivalent: E.P.G. 20, 30, 40 and Ed. 85, 105, 150 and 214 or 216; (3) college classification of junior, senior, or graduate student. Graduate or transfer students applying for student teaching will be held for the same prerequisite courses or their equivalent. Students must take their methods and observation, Ed. 150b, c, in the subject field or fields in which they do their student teaching.

Application for Student Teaching—Persons wishing to do student teaching must make application in the Student Teaching Office before registering for student teaching. They must apply the second or third week of the quarter prior to the quarter in which they wish to do student teaching.

Students making application for student teaching must secure the approval and signature of their adviser, a professor in their major field, and a professor in their minor field.

A student may apply for eight, twelve or sixteen hours of student teaching in one quarter. Students applying for four hours of student teaching in one quarter must have the approval of the department in which they wish to do student teaching. Four or eight quarter hours of student teaching may be earned during the Summer Session on the elementary level only in the Laboratory School. During the Summer Session there is no student teaching on the secondary level.

It may be deemed necessary for a student to be asked to spend one quarter away from the campus in order that he be able to complete a student teaching assignment which will give him the best experience. If a student needs a required course which is scheduled only during the quarter in which the student will be doing full-time off-campus student teaching, he will be exempted from that requirement.

Graduation Requirements

In addition to meeting the common, professional, major, minor, and physical education activity course requirements as specified below in this section of the catalog, each student expecting to graduate with a Bachelor of Arts degree must:

1. Apply for graduation after completing 135 quarter hours of course work.
2. Have a minimum of 45 quarter hours credit earned in courses taken on the campus in Greeley.

3. Not apply toward the degree more than 45 quarter hours of credit earned in: Colorado State College correspondence courses; and correspondence and extension courses transferred from other colleges and universities.

4. Have a cumulative grade point average of 3.00 or higher.

5. Have completed the Colorado State College matriculation examinations.

6. Have met the college photograph requirements.

7. Have a health examination within 12 months of his or her graduation date, and have this report filed with the Student Health Service.

8. Keep the Registrar informed at all times in regard to any change in graduation plans.

Each male student must complete the required Air Force ROTC program, unless exempted, according to college policy as explained in the Division of Air Science section of this catalog.

Bachelor of Arts Degree (With Teaching Certificate) — The Bachelor of Arts degree with teaching certificate may be taken in one of the following fields: Fine Arts, Home Economics, Dietetics, Industrial Arts, Business Education, Elementary Education, Special Education, Speech Correction, Physical Education for Men, Physical Education for Women, English, English and Speech, Foreign Languages, Speech, Drama, Music Education, Science (with concentration in either Biological or Physical Science), Chemistry, Mathematics, History, Social Science, and Social Studies.

Undergraduate Curriculum — The undergraduate curriculum consists of the following areas, totaling 180 academic quarter hours plus 6 quarter hours of Physical Activities:

A. General Education

48 quarter hours including Humanities, English Composition, Sciences, Social Studies, General Psychology, Personal Living, Physical Education.

B. Professional Education

31 to 38 quarter hours including Psychology of Childhood and Youth, Educational Psychology, Community Life and Problems, American Education, The Elementary School or The Secondary School, Methods and Observation, Student Teaching, Philosophy of Education.

C. Broad Areas of Concentration

1. A major of 48 quarter hours and a minor of 27 quarter hours.

D. Free Electives

28 to 35 quarter hours.

E. Physical Education Activities.

6 quarter hours.

Plans of Study—A student may choose from two plans of study to obtain the Bachelor of Arts degree with a teaching certificate. They are: (a) Major and Minor Plan; (b) Elementary Education Major.

Bachelor of Arts Degree (With Teaching Certificate) Major and Minor Plan—In this plan of study, a major is earned in a field of specialization. A minor and sufficient electives are required to provide a broad and thorough educational background.

PROGRAM

- a. Common Courses listed on pages 47-48.
- b. Required major courses not to exceed 48 quarter hours.
- c. One or two minors with a minimum of 27 quarter hours each. The number of minors depends upon the field in which the major is taken. Methods courses are not included in the requirements for the minor.
- d. Free electives to complete 180 quarter hours of academic credit.
- e. Six quarter hours of physical education activity courses. Whenever possible, these should be taken in the freshman and sophomore years. These hours do not apply toward 180 hours of academic credit.

Bachelor of Arts Degree (With Teaching Certificate) Elementary Education Major—The Elementary Education Major prepares students to teach in the elementary school. Students who complete this major carry on a program of study in various subject matter fields as well as in the education courses required for this major.

PROGRAM

- a. Common Courses listed on pages 47-48.
- b. Major Courses listed on page 95, plus adequate preparation in content courses recommended by the student's adviser.
- c. Sufficient electives to complete 180 quarter hours of academic credit.
- d. Six quarter hours of physical education activity courses. Whenever possible, these should be taken in the freshman and sophomore years. These hours do not apply toward 180 hours of academic credit.

Bachelor of Arts Degree (Liberal Arts)—The curriculum leading to the Bachelor of Arts degree in Liberal Arts is similar to programs offered in liberal arts colleges. Courses in education are not required for the degree.

Fields in which the degree may be taken are: Fine Arts, Dietetics, Home and Family Living; Physical Sciences, Biological Sciences, Mathematics, Chemistry, and Medical Tech-

nology; History, Social Science; English, Speech, Drama, Foreign Languages; and Business.

The degree may not be taken in the fields of Music, Health and Physical Education, Industrial Arts, and Education. Certain courses in these fields may be elected with the approval of the adviser and the Registrar. Methods, observation, and student teaching will not count toward graduation.

This degree is offered only in a Major and Minor plan of study. The major is earned in a field of specialization. A minor, outside of the field of specialization, and sufficient electives are required to provide a broad and thorough educational background.

PROGRAM

- a. Common Courses listed on page 48.
- b. Major courses required in a field of specialization not to exceed 48 quarter hours.
- c. A minor with a minimum of 27 quarter hours outside the major.
- d. Sufficient electives to complete 180 quarter hours of academic credit.
- e. Six quarter hours of physical education activity courses. Whenever possible, these should be taken in the freshman and sophomore years. These hours do not apply toward 180 hours of academic credit.

Bachelor of Arts Degree (With Major in Medical Technology) — Colorado State College and the Weld County General Hospital offer a four-year program leading to the Bachelor of Arts degree with a major in Medical Technology. Nine quarters of this program are given on the campus of Colorado State College. The clinical pathology staff is in charge of the program at Weld County General Hospital. The student must earn a total of 180 quarter hours plus 6 quarter hours of physical education activity courses. Of this, 45 quarter hours will be earned in the Weld County General Hospital and 141 quarter hours at Colorado State College. Student programs will be planned with the major professor.

Common Courses

Bachelor of Arts Degree (With Teaching Certificate) — The Common Courses listed here are required of all students who are studying for a Bachelor of Arts degree with teaching certificate.

Freshman Year

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
E.P.G.	20 - - General Psychology and Personal Adjustment	- - - - -	5
Eng.	4a - - Elementary English Composition	- - - - -	5

H.P.E.	61	- -	Personal Living and Community Health	- -	5
Hum.	1,2,3	- -	The Basic Course in the Humanities	- - -	9
Sci.	3	- -	Physical Science	- - - - -	3
Sci.	4	- -	Biological Science	- - - - -	3
Sci.	5	- -	Earth Science	- - - - -	3

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H.P.E.	- -	Physical Education Activity Courses			
		(see pages 134-135)	- - - - -		3

Sophomore Year

<i>Course Number</i>			<i>Course Title</i>		<i>Hours Credit</i>
E.P.G.	30	- -	Psychology of Childhood and Youth	- - -	3
E.P.G.	40	- -	Educational Psychology	- - - - -	3
Ed.	85	- -	Community Life and Problems	- - - - -	3
S.S.	81	- -	The Individual and His Social Relations	- - -	3
S.S.	82	- -	American Life and Institutions	- - - - -	3
S.S.	83	- -	Contemporary World Cultures	- - - - -	3

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H.P.E.	- -	Physical Education Activity Courses			
		(see pages 134-135)	- - - - -		3

Junior Year

<i>Course Number</i>			<i>Course Title</i>		<i>Hours Credit</i>
Ed.	105	- -	American Education	- - - - -	3
Ed.	150a	- -	Introduction to Student Teaching in the Elementary School	- - - - -	5
			<i>or</i>		
Ed.	150b	- -	Introduction to Student Teaching	- - - - -	2
			<i>and</i>		
Ed.	150c	- -	Methods	- - - - -	3
Ed.	214	- -	The Elementary School		
			<i>or</i>		
Ed.	216	- -	The Secondary School	- - - - -	3

For a total of - - - - - **11**

Senior Year

<i>Course Number</i>			<i>Course Title</i>		<i>Hours Credit</i>
Ed.	151	- -	Student Teaching	- - - - -	8 to 16
Ed.	295	- -	Philosophy of Education	- - - - -	3

11 to 19

Bachelor of Arts Degree (Liberal Arts)—The Common Courses listed here are required of all students who are studying for a Bachelor of Arts degree in Liberal Arts. The courses will be taken in the freshman and sophomore years.

<i>Course Number</i>			<i>Course Title</i>		<i>Hours Credit</i>
E.P.G.	20	- -	General Psychology and Personal Adjustment	- - - - -	5
Eng.	4a	- -	Elementary English Composition	- - - - -	5
H.P.E.	61	- -	Personal Living and Community Health	- - -	5
H.P.E.	- -	- -	Physical Education Activity Courses		
			(see pages 134-135)	- - - - -	6
Hum.	1, 2, 3	- -	The Basic Course in the Humanities	- - -	9
Sci.	3	- -	Physical Science	- - - - -	3
Sci.	4	- -	Biological Science	- - - - -	3
Sci.	5	- -	Earth Science	- - - - -	3
S.S.	81	- -	The Individual and His Social Relations	- - -	3
S.S.	82	- -	American Life and Institutions	- - - - -	3
S.S.	83	- -	Contemporary World Cultures	- - - - -	3

Graduate Division

Program — Colorado State College offers three advanced programs of professional work leading to the Master of Arts degree, Specialist in Education degree, and Doctor of Education degree. Graduate study was first offered during the Summer Session of 1913, and the first master's degree was conferred in June, 1914. In 1929 the Board of Trustees authorized the college to provide a program leading to the doctor's degree, and in 1952 the Specialist in Education (Ed.S.) degree was approved.

Organization — The Graduate Council is the legislative body for graduate work. Each of the instructional divisions of the college offering a graduate program is represented on the Graduate Council.

Objective — Colorado State College is primarily an institution for the preparation of teachers, supervisors, and administrative personnel. In accord with this fundamental objective, the college grants the teaching degrees of Bachelor of Arts, Master of Arts, Specialist in Education, and Doctor of Education.

Admission — All candidates for the graduate degree must file with the Dean of the Graduate Division an application in triplicate and two copies of certified transcripts of all previous academic credits preferably *thirty days before registration*. Students failing to make formal application for admission prior to the date of registration should expect a delay of several hours in completing enrollment while IBM materials are being prepared.

All classified graduate students are required to take: (1) English usage examination; (2) a personality inventory. The English usage examination will consist of an objective English usage test and an essay.

Students in the Master of Arts program scoring between the 80th and the 21st percentiles on the standardized English usage examination may be excused from the English Writing Laboratory requirement on the basis of creditable essay evaluation.

Students in the Specialist in Education and Doctor of Education programs scoring between the 80th and the 40th percentiles are subject to the above consideration.

Students scoring above the 80th percentile are excused from the English Writing Laboratory requirement.

A non-credit Writing Laboratory (English 0300) will be required of those students who fail to meet these minimum standards. (Laboratory fee, \$10.00). Students who are required to enroll in the Writing Laboratory will remain in the class until they can write acceptably according to standards set up by a committee composed of members of the Division of the Humanities.

Health — A student applying for admission to an advanced degree must file a medical examination. Prior to admission and following a medical examination by a qualified medical practitioner, a student shall submit to the Health Service of the college a health report which is acceptable to the staff of the Health Service indicating the student is in good physical and mental health, has no communicable disease, and has no defects or deficiencies which would hinder satisfactory progress in his chosen curriculum.

Photograph — Each student is required to furnish two photographs, application size of 3" x 4", for the official files of the college. These photographs are for identification purposes only and not a criterion for admission.

Courses for Seniors — Senior students may, in their last quarter of undergraduate study, register for graduate courses which are in excess of the requirements for the bachelor's degree. Arrangements for admission to the Graduate Division must be made with the Dean of the Graduate Division.

Registration and Advisement — The Dean of the Graduate Division will appoint an adviser for those students who have completed admission requirements. All degree programs will be planned with and approved by the students' adviser. A change of an adviser must have the approval of the Dean of the Graduate Division.

Students who have not completed admission requirements before registration will enroll as unclassified graduate students. When the student is admitted to full graduate standing and assigned a major adviser, all applicable courses of graduate rank taken as an unclassified student will be credited toward the graduate degree.

Graduate students who are not candidates for advanced degrees will register as unclassified students. However, each student is urged to plan a degree program at the beginning of his graduate experience.

All registrations are subject to approval by the Dean of the Graduate Division.

Student Responsibility — The graduate student is expected to know the requirements for the degree he plans to earn. While the personnel of the Graduate Office and the student's adviser will endeavor to aid in every way possible, the responsibility for any error in his enrollment or in the interpretation of the rules rests with the student.

Doctor of Education and Specialist in Education degree candidates enrolled in evening and Saturday programs as part-time students who register at time of class meeting rather than on day of registration must report to the Graduate Division Office to have registration materials processed prior to reporting to the Accounting Office for payment of tuition and fees.

Course Load, Credit, and Off-Campus Courses — The normal load for graduate credit applicable to a degree is fifteen hours per quarter in the academic year, twelve quarter hours for the eight-weeks' summer session, and three quarter hours for the two-weeks' pre-session.

Courses bearing catalog numbers of 200 or above carry graduate credit.

Graduate credit is not given for any courses taken by correspondence.

A student may earn a maximum of eight quarter hours of credit applicable to the master's degree in off-campus courses taught by regular full-time Colorado State College faculty members. No off-campus credit is applicable to the specialist or doctorate degrees.

Grading System — Alphabetical grades are used: A, B, C, D, F. *No graduate credit applicable to a degree will be allowed for courses with a grade below C.* Other marks used are "Inc." incomplete; "W" approved withdrawal; "TF" unapproved withdrawal; "WF" failing at withdrawal.

Each of the letters of the grading system has a numerical value. The letter "A" has a value of 5 points per unit of credit; "B" a value of 4 points; "C" a value of 3 points; "D" a value of 2 points; and "F" a value of 1 point.

Scholastic Average — A minimum grade average of 3.66 (B-) or better is required for graduating with the Master of Arts degree. A minimum grade average of 4.00 (B) or better is required for graduating with the Specialist in Education or Doctor of Education degree.

Late Enrollment and Changes in Programs — An assessment of a five dollar late registration fee is made by the Accounting Office on all late registrations.

No student will be permitted to enroll after the first week of the Fall, Winter, and Spring quarters, and the regular eight-week summer session. No late enrollments will be approved for the two-weeks' pre-session.

Changes in programs will be permitted without penalty until *four o'clock on the Friday* following registration. *After that all changes will cost one dollar.*

Withdrawal from Class — No withdrawals from classes are permitted during the last two weeks of a quarter. Withdrawals prior to the final two weeks must have the approval of the candidate's adviser. If a student discontinues class attendance he must withdraw *officially* from the course or a grade of TF (technical failure) will be recorded.

English Style-Form Standards — The student's written material must conform with "A Manual for Writers of Term Papers, Theses and Dissertations," by Kate L. Turabian. This manual is available for purchase in the College Bookstore.

Professional Requirements: Elementary* — All students receiving a graduate degree from Colorado State College must have at least 30 quarter hours of undergraduate and/or graduate credit in education and educational psychology regardless of the area in which they major.

Students who do not meet this professional requirement will be held for the following courses:

<i>Course Number</i>	<i>Course Title</i>
E.P.G. 220	General Psychology and the Principles of Behavior
E.P.G. 230	Psychology of Childhood and Adolescence
E.P.G. 240	Psychology of Learning
Ed. 398	Current Educational Trends and Issues
Ed. 214	The Elementary School
Ed. 150a	Introduction to Student Teaching in the Elementary School
<i>Methods courses: Any two courses of the following list of four taken prior to Ed. 151:</i>	
Ed. 210	Improvement of Instruction in Reading in the Elementary School
Ed. 211	Improvement of Instruction in Language in the Elementary School
Ed. 212	Improvement of Instruction in Arithmetic in the Elementary School
Ed. 213	Improvement of Instruction in Social Studies in the Elementary School
Ed. 151	Student Teaching
Ed. 295	Philosophy of Education

In many instances candidates may use courses numbered 200 and above as elective credit in the degree program.

Professional Requirements: Secondary* — All students receiving a graduate degree from Colorado State College must have at least 30 quarter hours of undergraduate and/or graduate credit in education and educational psychology regardless of the area in which they major. Students who do not meet this professional requirement will be held for the following courses:

<i>Course Number</i>	<i>Course Title</i>
E.P.G. 220	General Psychology and the Principles of Behavior
E.P.G. 230	Psychology of Childhood and Adolescence
E.P.G. 240	Psychology of Learning
Ed. 398	Current Educational Trends and Issues
Ed. 216	The Secondary School
Ed. 150b	Introduction to Student Teaching in the Secondary School
Ed. 150c	Methods of Teaching in the Secondary School (see 150 series in specific subject-matter area for precise catalog number)
Ed. 151	Student Teaching
Ed. 295	Philosophy of Education

*The Director of Student Teaching, the Dean of the Graduate Division, or the Chairman of the Division of Education may substitute approved courses for specific course work listed below in case of schedule conflicts or other extenuating circumstances.

In many instances candidates may use courses numbered 200 and above as elective credit in the degree program.

Limitations on Enrollment — 1. The first summer session or regular quarter in residence is a trial quarter.

2. Members of the faculty of Colorado State College above the rank of instructor are not permitted to enter any graduate degree program.

Master of Arts Degree

The degree of Master of Arts is offered in these seven instructional divisions of the college with majors in each division as follows:

DIVISION OF THE ARTS — Industrial Arts, Fine Arts, Home Economics;

DIVISION OF EDUCATION — Educational Administration*, Educational Psychology and Guidance, Elementary Education, Elementary School Administration and Supervision*, Secondary Education, Special Education, Business Education, Junior High School Education, Junior High School Administration and Supervision;

DIVISION OF HEALTH AND PHYSICAL EDUCATION — Physical Education, Health Education, Supervision of Physical Education*;

DIVISION OF THE HUMANITIES — English, Speech and Drama;

DIVISION OF MUSIC — Music Education, Supervision of Music*;

DIVISION OF THE SCIENCES — Biological Sciences, Physical Sciences, Science Education, Mathematics;

DIVISION OF THE SOCIAL STUDIES — History, Social Science, and Social Studies Education.

*These majors require two years of actual teaching experience as a prerequisite.

Admission — For admission to graduate courses applicable to the degree of Master of Arts, the student must hold a baccalaureate degree from an accredited college or university.

Transfer of Credit — A maximum of eight quarter hours of graduate credit may be transferred from institutions approved by a recognized accrediting agency to offer a graduate program leading to the master's degree. No transfer credit shall be counted that was earned more than five years prior to its transfer. This credit must be compatible with the student's field of concentration. *Such transfer of credit may reduce load, but it will not reduce the residence requirements (thirty weeks).* Graduate credit is not transferable if earned in off-campus classes or in courses classified as "extension". Transferred credit may not be used to make up "D" or "F" received in required courses.

Residence and Time Requirement — The minimum residence requirement for the Master of Arts degree in the college is one academic year or thirty weeks.

The maximum time limit for completion of the graduate program for the master's degree is five calendar years.

Introduction to Graduate Study — In the first quarter in residence all graduate students working toward the Master of Arts degree are required to register for the "300" course, "Introduction to Graduate Study." In this course standards for graduate study, research methods, evaluation of printed research, bibliographical tools and other items will be emphasized. Plan a program with the adviser. The candidate should take Introduction to Graduate Study and a course with his adviser during his first quarter.

Minimum Requirements for the Major — For the degree of Master of Arts, the student must have a minimum of sixty-four quarter hours of graduate and undergraduate credit in the major field. At least 24 quarter hours of graduate credit for the degree of Master of Arts must be in the field of the major in the Colorado State College degree program.

Whenever possible within the framework of the above rules, the student whose undergraduate record shows a high specialization in a few areas at the expense of general cultural background in the liberal arts and sciences may be required to earn part of his graduate credit in these areas.

Specific Requirements for Graduation — All general requirements for a master's degree must be met. In addition, the candidate shall:

1. Earn a minimum of 45 quarter hours of graduate credit and maintain a 3.66 average. One-third or 15 quarter hours of this credit must be in courses open only to graduate students (courses numbered 300 and above). With the adviser's approval, the candidate may satisfy this one-third or 15 quarter hour requirement by taking Introduction to Graduate Study; at least one course numbered 301 or above in his major field; not more than one course numbered 301 or above outside his major field; and not more than one individual study in his own division (the course numbered 322).

It shall be the prerogative of the adviser in consultation with the Dean of the Graduate Division to invite certain candidates to write a thesis in partial fulfillment of the requirements for the degree.

At least seventeen days before the end of the quarter in which the candidate expects to graduate, present to the Graduate Division Office four copies of the thesis in final typed form, approved and signed by the adviser and ready for the approval and signature of the Dean of the Graduate Division.

The thesis should be presented to the adviser for final reading by the beginning of the fourth week of the final quarter in residence. The thesis shall conform with "A Manual for Writers of Term Papers, Theses, and Dissertations," by Kate L. Turabian.

After being signed and bound, three copies of the thesis become the property of the college and one is sent to the student. The ribbon copy and the first carbon copy are filed in the college library; the third copy is delivered to the student's major adviser. A charge of \$10 is made for binding and mailing the four copies.

The student must provide with each bound copy of the thesis an abstract of the study. In addition an extra copy of the abstract shall be filed with the student's record in the Graduate Division Office.

Or with the approval of the adviser and the Dean of the Graduate Division, a creative project in fine arts, literature, or music may be undertaken as the equivalent of the thesis for the master's degree. Upon the completion of the project, the student shall submit a detailed written explanation of the problem's contribution to contemporary thought and life to be filed in the Graduate Office at least seventeen days before the end of the quarter in which the candidate expects to graduate.

Eight quarter hours of credit are granted for the thesis or creative project.

2. Pass a written comprehensive examination in the major field. The student's examination paper, after being evaluated by the adviser, will be filed in the Graduate Division Office at least ten days before the end of the last quarter in residence.

In case of failure to pass the comprehensive examination or any part of it, the student may be permitted, upon written request of the adviser, to retake the test. A special examination fee will be charged for this additional test. Failure to pass the retest will eliminate the candidate from further work applicable to a degree.

3. Make a formal application for graduation not later than 30 days prior to the quarter or session in which the candidate expects to graduate. A late fee of \$2.00 will be charged for failure to apply on time.

Specialist in Education Degree

The Specialist in Education degree program shall prepare one to be a specialist. It is not to be a program of more courses and more credits in the same divisional patterns as those usually found in the present master's and doctor's programs.

Each applicant for admission to the program will be considered as an individual case in terms of the area in which he wishes to specialize, his background and experience preparing him for such specialization, and the possibility of a program being provided to offer him the opportunity he desires. The applicant will be expected to have a very clear idea of his proposed area of specialization.

A candidate might wish to specialize in areas similar to the following:

- a. The Supervision of Student Teaching.
- b. The Supervision of Science Instruction.
- c. Conservation Education.
- d. Basic Programs in the Secondary School.
- e. Reading in the Elementary School.
- f. Guidance in the Elementary School.
- g. Guidance in the Secondary School.
- h. Testing in the Elementary School.
- i. Consultant in School Buildings.
- j. Teaching of Spelling and Grammar.
- k. Academic Records.
- l. Curriculum Specialization.
- m. Psychometrics.
- n. Specialization in Academic Areas (Preparation to teach on the junior college level).

The college does not have the facilities, offerings, or staff to support all of the areas that might be suggested by the applicant. Please note that many of the programs cut across divisional lines.

Candidates choosing to continue work toward the Ed.D. degree upon completion of the Ed.S. degree may apply for admission to the doctoral program. Courses which are ordinarily applicable to the doctorate degree will be considered transferrable from the Ed. S. degree to the Ed.D. degree.

Admission — 1. For admission to graduate courses applicable to the degree of Specialist in Education, the student must hold a master's degree from an accredited college or university.

2. The applicant must have 30 or more quarter hours in education and psychology and satisfy Colorado teaching certification requirements.

3. The applicant must have an adequate academic background in the areas involved in his plan of specialization. If inadequate, the supervising committee may require course work in addition to the requirements of the Ed.S. degree.

4. The applicant must have an acceptable undergraduate and graduate scholastic average 4.00 (B) or better.

5. Two years of successful teaching experience is a prerequisite requirement for admission to work for the Specialist in Education degree.

6. Upon the receipt of the application for admission, the Dean of the Graduate Division will appoint a committee of at least two faculty members, one of which shall act as chairman, to help the student plan his program.

Transfer of Credit — A maximum of eight quarter hours of graduate credit may be transferred from institutions approved by a recognized accrediting agency to offer a graduate program leading to an advanced degree. No transfer credit shall be counted that was earned more than five years prior to its transfer. This credit must be compatible with the student's area of concentration. *Such transfer of credit may reduce load, but it will not reduce the residence requirements (thirty weeks).* Graduate credit is not transferable if earned in off-campus classes or in courses classified as "extension." Transferred credit may not be used to make up "D" or "F" received in required courses.

Residence and Time Requirements — The minimum residence requirement for the Specialist in Education degree in the college is one academic year or thirty weeks.

The maximum time limit for completion of the graduate program for the specialist's degree is six calendar years.

Specific Requirements for Graduation — All the general requirements for a specialist degree must be met. In addition the student shall:

1. Earn a minimum of 45 graduate quarter hours of credit in residence and maintain a 4.00 (B) average. Twenty-four quarter hours of the graduate credit, which will include the credit for the required practicum, shall be earned in courses numbered 300 or above.

Specialized interests of the student for which no regularly scheduled courses are available will be cared for through Individual Studies (322), Practice in School Administration (345), Practicum (in areas other than administration) (301), and the required Practicum (401).

2. In the first quarter or summer session in residence all students in the specialist program must enroll for the course, "Introduction to Doctoral Research" (Ed. 400), or its equivalent unless they have already had a comparable course on the graduate level.

3. Present at least one practicum (401) representing his major interest and for which eight quarter hours of credit will be given. This required practicum shall be enrolled for in the second and third quarters in residence. A written plan for the required practicum shall be filed in the Graduate Division Office by the end of the eighth week of the second quarter or summer session in residence and must have been approved by the supervising committee.

At least seventeen days before the end of the final quarter in residence, four typewritten copies of the report of the practicum which has been approved by the student's adviser and the supervisory committee shall be filed in the Office of the Graduate Division. The four copies will be bound. The original and first carbon copy will be placed in the library, the second carbon copy will be delivered to the faculty committee, and the third carbon copy will be sent to the student. A binding and mailing fee of \$10.00 will be charged. The report shall conform to "A Manual for Writers of Term Papers, Theses and Dissertations."

4. Pass a written comprehensive examination over his specialty and his practicum, and meet such other final requirements as his committee may prescribe. This written examination, when approved, shall be filed with the student's records in the Graduate Division Office at least ten days before the date of graduation. The adviser shall make all arrangements for final examination.

5. In case of failure to pass the comprehensive examination or any part of it, the student may be permitted, upon written request of his faculty committee, to retake the test. A special examination fee will be charged for this additional test. Failure to pass the retest will eliminate the student from further work applicable to the degree.

6. Pay the Specialist in Education Research Studies Fee of \$75.00. This fee is assessed to each applicant at the rate of \$25.00 per quarter of enrollment for three quarters.

7. Make formal application for graduation not later than 30 days prior to the quarter in which the candidate expects to graduate. A late fee of \$2.00 will be charged for failure to apply on time.

Doctor of Education Degree

The degree of Doctor of Education is offered in the following areas of concentration:

- Business Education
- Educational Administration
- Educational Psychology and Guidance
- Elementary Education
- Health and Physical Education
- Industrial Arts Education
- Music Education
- Secondary Education
- Science Education
- Social Studies
- Special Education

In most instances a candidate will complete 48 or more hours in his area of concentration. This does not include credit for his research study. In addition to his area of concentration a student must take a minimum of 24 quarter hours in one or more supporting areas. Supporting areas include the following:

- Business Education
- Curriculum
- Educational Administration
- Educational Psychology and Guidance
- Elementary Education
- Health and Physical Education
- Higher Education
- History and Philosophy of Education
- Industrial Arts Education
- Mathematics
- Music Education
- Secondary Education
- Science
- Social Studies
- Special Education

A student may plan a general program in which he will select three areas of concentration. The required course work must be planned with his committee.

Admission — 1. For admission to graduate courses applicable to the degree of Doctor of Education, the student must possess a master's degree from an accredited graduate school. The applicant may be denied admission if his previous academic average has not been of high quality (B or better).

2. Sixty-four quarter hours in the fields of education and psychology are prerequisites for admission to courses applicable to the doctor's degree in the following areas of concentration: Administration, Elementary Education, Educational Psychology and Guidance, Secondary Education, and Special Education.

Forty quarter hours of professional education courses are prerequisites for admission to courses applicable to the doctor's degree in the following areas of concentration: Business Education, Health and Physical Education, Industrial Arts Education, Music Education, and Science Education.

Thirty quarter hours of professional education are prerequisites for admission to courses applicable to the doctor's degree in Social Studies.

3. In addition to the admission requirements, the applicant is required to take the Graduate Record Examination Battery consisting of the Advanced Test in Education, the Area Test in Social Sciences, Natural Sciences and Humanities, and the General Aptitude Test, as well as the English usage examination and a personality inventory.

Limitations on Enrollment for the Doctorate — 1. The first summer session or regular quarter in residence is a trial session or quarter during which the Graduate Council has the right to discourage any student from continuing for the doctorate.

2. Two years of successful teaching experience is a prerequisite for admission to work for the doctor's degree.

Course Program — In the first quarter or summer session in residence all students in the doctoral program must enroll for the course, "Introduction to Doctoral Research" (Ed. 400), or its equivalent unless they have already had a comparable course on the graduate level.

Twenty-four quarter hours of course work applicable to the doctor's degree must be in courses numbered 300 or above. Only courses taught by members of the faculty with an earned doctor's degree will apply to the Ed.D.

Candidates concentrating in Business Education, Health and Physical Education, Industrial Arts Education, Music Education, or Science Education must complete the basic foundational courses which are: Ed. 461, Philosophical Foundations of Education; Ed. 462, Psychological Foundations of Education; Ed. 463, Sociological Foundations of Education.

Research Studies — One research study is required for which the student may receive eighteen quarter hours of research credit. Upon the recommendation of the adviser, a candidate may write, in lieu of one research study, two studies for nine hours credit each. The student will pay a research fee in addition to the regular tuition fees.

The preliminary outline of the study* shall be under the supervision of the adviser and a research and examining committee. This committee will consist of four members representing the area of concentration, the supporting areas, and the faculty at large.

The committee will be appointed by the Dean of the Graduate Division.

*Student is required to submit six copies of the research outline.

Candidacy for the Degree — To be eligible for formal admission to candidacy for the degree of Doctor of Education, the student shall have earned at least 36 quarter hours of credit with a 4.00 (B) or better grade average, shall have passed satisfactorily the written and oral comprehensive examinations, shall have presented an approved outline for the research study, and shall have successfully completed all other classification requirements. No student will be graduated at the end of the quarter in which he is admitted to candidacy.

Time and Residence Requirements — The maximum time limit for earning the doctor's degree is *eight calendar years*. In the event of a manifest hardship delay which exceeds the time limit, the candidate may petition the Graduate Council for an extension which may be granted under such provisions as determined by the Graduate Council.

The minimum residence requirement for the degree of Doctor of Education is forty-eight weeks.

Transfer of Credit — Transfer of credit to the extent of twelve quarter hours may be granted toward the doctorate, *but in no case will this transfer of credit reduce the residence requirements*. Transfer of credits will be subject to the following rules: (1) That it may be made an integral part of the student's total plan; (2) that it was *earned on the campus of an accredited institution offering the doctor's degree*; (3) that it was earned within five years preceding the date of transfer.

The Graduate Council reserves the right to send doctoral students to another accredited institution which offers the doctorate to earn a maximum of twelve quarter hours in specific courses. Off-campus and extension classes are not acceptable.

Advisement — Upon receipt of a statement of the prospective student's field of interest, the Dean of the Graduate Division will assign him to a member of the faculty, who will act as the adviser for the first quarter and with whom the student will register. This assignment will become permanent automatically unless the adviser or the student makes a request for a change.

Research Adviser — At the request of the adviser a research adviser may be appointed to direct the research study.

Specific Requirements for Graduation — In addition to all the general requirements for a doctor's degree the student shall:

1. Be recommended for graduation by his committee.
2. Earn a minimum of 90 quarter hours of graduate credit beyond the master's degree and maintain a 4.00 (B) grade average. Of this credit 24 hours must be in courses numbered 300 or above.
3. Demonstrate that he has at least a minimum knowledge and understanding in the three areas of Science, Social Science, and Humanities. Candidates who fail to make satisfactory scores on the Graduate Record Examinations battery may be held for deficiency course work. These requirements will be imposed in addition to the minimum requirements of 90 quarter hours.
4. Be in residence on the campus of Colorado State College at least forty-eight weeks.
5. Present one or two research studies for which the student receives 18 quarter hours of credit. The fully approved study or studies must be filed in the Graduate Division Office at least seventeen days before graduation.
6. Pass satisfactorily the following examinations in addition to the usual course examinations:

(a) Comprehensive written and oral examinations. These examinations will take place normally after the student has successfully completed, with better than a 4.00 (B) grade average, 36 quarter hours of full-time course work. The written examination in the area of concentration will be given by the adviser and in the supporting area by the appropriate committee member.

The written examinations will be given before the oral examination and will be available to all members of the research and examining committee prior to the oral examination and finally shall be filed in the student's folder in the Graduate Division Office. The members of the research and examining committee will evaluate the written and oral examinations as follows:

- (1) Satisfactory.
- (2) Unsatisfactory with the privilege of additional examinations for which a fee will be charged. One quarter or summer session must intervene before the examination may be given again. A second retest will not be permitted.
- (3) Failure.

In case of failure the student will have eliminated himself from further work applicable to the doctorate and may not present himself for further examinations.

- (b) Oral examination in defense of the research study.

7. Pay \$40 for the publication of each research study. The research study is microfilmed and a 1500-word abstract of the study is lithoprinted. For the purpose of publication the student files in the office of the Graduate Division two extra copies of the abstract of each study. This abstract cannot be more than 1500 words.

8. Pay \$10 for the binding and mailing of research study. At least four copies of the research study, including an abstract, are required to be bound. After being bound, the ribbon copy and the first carbon copy are filed in the college library, one copy is delivered to the student's adviser and one copy is sent to the student.

9. File a vita to be included in the permanent record.

10. Make formal application for graduation not later than 30 days prior to the quarter in which the candidate expects to graduate. A late fee of \$2.00 will be charged for failure to apply on time.

Division of Air Science

Air Force ROTC was first established in 1946 in leading colleges and universities as a part of the Army's ROTC program. Formal control of its own ROTC program was assumed by the Air Force at college level on July 1, 1949, and introduced at Colorado State College in the Fall quarter of 1951. The Air Force ROTC program is the primary source of junior officers for the Air Force today.

The Air Force ROTC program of instruction is integrated with the regular college academic degree requirements to permit the student to receive undergraduate credit for all Air Science courses. Upon successful completion of the Air Force ROTC program and attainment of a degree, the student upon the recommendation of the Professor of Air Science may be offered a reserve commission as Second Lieutenant in the United States Air Force Reserve. If called to duty as a reserve officer, the student has an opportunity to apply for a regular commission in the United States Air Force. Physically qualified commissioned Air Force ROTC graduates are eligible to apply for pilot or aircraft observer training in the grade of Second Lieutenant with all pay and allowances of that grade. Present Air Force monthly pay for a Second Lieutenant is \$355.68 if married and \$338.58 if single. A Second Lieutenant undergoing flight training receives an additional \$100.00 per month.

Purpose — The mission of the Air Force ROTC is to develop in selected college students, through a permanent program of instruction at designated civilian institutions, those qualities of leadership and other attributes essential to their progressive advancement to positions of increased responsibilities as commissioned officers in the United States Air Force.

Objectives — 1. To develop in selected cadets, through a sound education and training program, the initial motivation to serve as career officers in the United States Air Force.

2. To develop in cadets by precept, example, and participation the attributes of character, personality, and attitudes essential for leadership.

3. To develop in the cadet an interest in the Air Force and an understanding of its mission, organization, operations, problems, and techniques.

4. To provide that military education and training which will prepare cadets to discharge the duties and responsibilities required of them as Air Force officers.

5. To select and motivate cadets for career fields as specifically required by the United States Air Force.

General — The Air Force ROTC program consists of academic courses which normally cover a four-year period of study. The freshman and sophomore AFROTC courses are commonly referred to as the "Basic Course" and are required for all incoming male freshmen. The junior and senior AFROTC courses are commonly referred to as the "Advanced Course" and enrollment in this course is optional and highly selective.

Once a student enrolls in either the Basic or Advanced Course, completion of that two-year course becomes a prerequisite for graduation.

A complete distinctive blue Air Force uniform will be issued, on a loan basis, to each student enrolled in the AFROTC program.

Textbooks are also issued, on a loan basis, to each ROTC student.

Deferment — Deferment for students enrolled in the AFROTC program and in good standing is permitted by the National Selective Service Act. Students become eligible for deferment in the Winter quarter of the freshman year. This is made possible by the need of the Air Force for college graduates with reserve commissions. This deferment, under present Department of Defense policies, will remain in effect should a national emergency arise.

To qualify for an AFROTC deferment a student must willingly assume the following obligations:

1. To enroll in, and satisfactorily complete, the four year AFROTC course of instruction (contingent upon remaining in school).
2. Upon graduation and completion of the AFROTC course, to accept and retain in an active status, as a member of a regular or reserve component, for a period of six years, a reserve commission in the United States Air Force.
3. After graduation to serve on active duty for a period of not less than three or five years if called by the Secretary of the Air Force.

Deferment of AFROTC students will be terminated if the student:

1. Fails to remain in good standing in either his military or academic courses.
2. Fails to demonstrate proper and sufficient aptitude.
3. Fails to enroll in an AFROTC course during any quarter in which he normally is expected to be in attendance.
4. Fails to attend summer camp when ordered to do so.

BASIC COURSE

All incoming male freshmen are required to enroll in and satisfactorily complete (with exceptions as listed below) the basic AFROTC Course which requires attendance at two hours

of instruction per week plus leadership laboratory. The laboratory meets two hours fall quarter and one hour spring quarter per week.

Transfer students with 45 or more quarter hours credit are not required to enroll in the Basic Course. Transfer students may enroll in AFROTC courses on an optional and selective basis if they are found to be fully qualified.

Enrollment in the Basic Course is not required of freshman students who have served on active duty for a period of one year or more with any branch of the armed forces.

First quarter freshman students in any one of the following categories will not be permitted to enroll in AFROTC courses and the requirement for completion of the Basic Course as a prerequisite to graduation will be waived in their case:

1. Non-citizen of the United States.
2. Physically unfit.
3. 23 years of age.
4. Record of previous convictions by military or civil court.

Veterans desiring to enroll in AFROTC program will be excused from certain Basic Course requirements as deemed appropriate by the Professor of Air Science.

The Basic Course in the AFROTC program is of two years' duration and includes Air Science (A.S.) 1a, 1b, 1c, 2a, 2b, 2c. Completion of the Basic Course, or credit for equivalent training is a prerequisite to enrollment in the Advanced AFROTC Course.

The Basic Course is designed to establish an optimum foundation for the development of an Air Force officer and to develop in the student an awareness and understanding of our national defense program and the role of military aviation.

The freshman and sophomore enrolls in one of the following required courses each quarter:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
A.S. 1a	Foundations of Air Power—1	1	1
A.S. 1b	Foundations of Air Power—1	1	1
A.S. 1c	Foundations of Air Power—1	1	1
A.S. 2a	Foundations of Air Power—2	1	1
A.S. 2b	Foundations of Air Power—2	1	1
A.S. 2c	Foundations of Air Power—2	1	1

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ADVANCED COURSE

The Advanced Course is a two-year course of instruction with emphasis placed on subjects which will develop in the student a high growth potential as an Air Force officer. Each quarter of study in the Advanced Course requires attendance at four hours of instruction per week plus leadership laboratory. The laboratory meets two hours fall quarter and one hour spring quarter per week.

Eligibility Requirements — To be eligible for enrollment in the Advanced Course the student must submit an application to the Professor of Air Science. This application will include:

1. Documentary evidence of completion of the Basic Course or of equivalent training. (Veterans will submit a photostatic copy of discharge.)
2. Documentary evidence of age. (Applicants cannot be over 25 years of age upon entrance into Advanced Course.)
3. A statement that the student will attend an Air Force ROTC summer camp of four weeks' duration during his summer vacation between the junior and senior years.
4. A statement that the student has never been a member of a subversive organization.
5. A statement that, upon completion of the course and graduation, the student will accept and retain in an active status, as a member of a regular or reserve component for a period of six years, a reserve commission in the United States Air Force Reserve. Also, that student will serve a minimum of three or five years on active duty, if called by the Secretary of the Air Force.
6. A statement that the student will arrange his student teaching to permit his continued attendance of military classes on the campus.
7. A statement that the student has never been convicted by military or civil court. (A waiver can be requested for those students who have been found guilty of minor violations.)
8. Academic record and results of general survey and screening tests.

Selection for Advanced Course — The college and the Professor of Air Science will select those applicants found to be the most highly qualified for enrollment in the Advanced Course. The number of students selected is subject to quota limitations imposed by the Air Force. Maximum enrollment quota in the Advanced Course exists for students physically qualified and desirous of flight training with the Air Force after graduation.

Required courses in the advanced course:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
A.S. 101a	- - Air Force Officer Development	-	3
A.S. 101b	- - Air Force Officer Development	-	3
A.S. 101c	- - Air Force Officer Development	-	3
A.S. 201a	- - Weather and Navigation	-	3
Geog. 260	- - Political Geography	-	5
Pol. Sci. 276	- - International Relations	-	3
A.S. 201c	- - The Air Force Officer	-	1

Benefits and Allowances for Advanced Course Cadets — 1. Commission in either the Regular Air Force or the United States Air Force Reserve.

2. Deferment from induction under Selective Service.
3. Officer-type uniform furnished by the government.
4. Monetary allowances:
 - a. 90 cents per day during period of enrollment in Advanced Course. (595 day limit)
 - b. Pay of approximately \$72.80 while in attendance at four-week summer encampment.
 - c. Travel allowance of 5 cents per mile to and from camp site.
5. Academic credit of a minimum of 3 hours each quarter.
6. ROTC texts will be furnished on a loan basis.
7. Opportunity for graduate training in civilian institutions after call to active duty.

An Advanced Course student who is discharged from the AFROTC program for any reason, other than the convenience of the Government, may be required to refund to the United States Government all pay received at a rate of 90 cents per day during his enrollment in the Advanced Course.

Staff and Equipment — Air Force personnel are detailed by Headquarters, United States Air Force, as instructors in the ROTC Unit. The Professor of Air Science, as well as his officer and airmen assistants, are highly qualified and are usually combat duty veterans.

Equipment for instruction is furnished by the Air Force, including many training aids, mock-ups, and visual training charts pertaining to the subjects taught.

Description of Courses

1a. FOUNDATIONS OF AIR POWER—1. *One hour credit.*

A general survey of aeronautical science to include general aviation; elements of an aircraft; aerodynamics; and guidance, control, and navigation and propulsion systems.

1b. FOUNDATIONS OF AIR POWER—1. *One hour credit.*

A general survey of air power designed to provide the student with an understanding of the elements and potentials of air power. It includes fundamentals of air power; military air powers of the world; military research and development; and air vehicle industries; and airlines and airways.

1c. FOUNDATIONS OF AIR POWER—1. *One hour credit.*

A general survey of space flight, military instruments of national security, and professional opportunities in the United States Air Force.

2a. FOUNDATIONS OF AIR POWER—2. *One hour credit.*

Prerequisites, AS 1a, b & c or equivalent. A survey of the development of aerial warfare with emphasis on principles of war, concepts of employment of forces, and changing weapons systems.

2b. FOUNDATIONS OF AIR POWER—2. *One hour credit.*

Prerequisites, AS 1a, b & c or equivalent. Treatment of aerial warfare is undertaken to include targets, weapons, aircraft and missiles.

2c. FOUNDATIONS OF AIR POWER—2. *One hour credit.*

Prerequisites, AS 1a, b & c or equivalent. Treatment of aerial warfare is continued to include bases and facilities, and aerial operations.

101a. AIR FORCE OFFICER DEVELOPMENT. *Three hours credit.*
Prerequisites, AS 1a, b & c and AS 2a, b & c or equivalent. Knowledge and skills required of a junior staff officer in the Air Force. This includes staff organization and functions, communicating and instructing.

101b. AIR FORCE OFFICER DEVELOPMENT. *Three hours credit.*
Prerequisites, AS 1a, b & c and AS 2a, b & c or equivalent. Problem solving techniques are taught as applied to Air Force Staff and command problems. In addition the basic principles of leadership psychology are studied.

101c. AIR FORCE OFFICER DEVELOPMENT. *Three hours credit.*
Prerequisites, AS 1a, b & c and AS 2a, b & c or equivalent. Problems in leadership and management. Application of the principles and theories of problem solving and leadership to simulated and real Air Force problems are treated. In addition the military justice system is taught.

201a. WEATHER and NAVIGATION. *Three hours credit.*
Prerequisites, AS 101a, b & c. An introduction presenting the weather and navigational aspects of airmanship, such as temperature, pressure, air masses, precipitation, weather charts, navigational charts and dead reckoning navigation, globes and maps in the air age world, and the geography of climate.

201b. This course is substituted by Geog. 260.

201c. THE AIR FORCE OFFICER. *One hour credit.*
Prerequisites, AS 101a, b, c. Material to help the cadet make a rapid, effective adjustment to active duty as an officer of the United States Air Force. (The cadet must also enroll in Pol. Sci. 276 simultaneously.)

Division of the Arts

The Division of the Arts includes the fields of Fine Arts, Home Economics and Industrial Arts. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (With Teaching Certificate)

Majors: Fine Arts, Home Economics, Dietetics, Industrial Arts.

Minors: Fine Arts, Home Economics, Industrial Arts.

BACHELOR OF ARTS DEGREE (Liberal Arts)

Majors: Fine Arts, Home and Family Living, Dietetics.

Minors: Fine Arts, Home and Family Living.

MASTER OF ARTS DEGREE (With Teaching Certificate)

Majors: Fine Arts, Home Economics, Industrial Arts.

Minors: Fine Arts, Home Economics, Industrial Arts.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)

Area of Concentration: Industrial Arts Education.

Supporting Area: Industrial Arts Education.

FINE ARTS MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
F.A.	1	- - Drawing - - - - -	3
F.A.	2	- - Composition - - - - -	3
F.A.	4	- - Figure Construction - - - - -	3
F.A.	11	- - Introduction to Design - - - - -	4
F.A.	13	- - Lettering - - - - -	2
F.A.	17	- - Introduction to Pottery - - - - -	3
F.A.	102	- - Composition - - - - -	3
F.A.	103	- - Introduction to Watercolor Painting - - - - -	
		<i>or</i>	
F.A.	120	- - Introduction to Oil Painting - - - - -	4
F.A.	105	- - Color Theory - - - - -	4
F.A.	116	- - Craft Processes and Design - - - - -	4
F.A.	123	- - Art Education for the Secondary School - - - - -	4
F.A.	125	- - Instructional Techniques in Art Education - - - - -	4
F.A.	221a	- - Art History I - - - - -	5
F.A.	221b	- - Art History II - - - - -	5

3. One minor of 27 quarter hours outside of the Division of the Arts (a second minor within the Division is optional).
4. Electives to complete requirements for graduation.

**FINE ARTS MAJOR (Junior High School Level)
Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 1	Drawing	3
F.A. 11	Introduction to Design	4
F.A. 13	Lettering	2
F.A. 14	Drawing and Painting Techniques	3
F.A. 17	Pottery	3
F.A. 102	Composition	3
F.A. 103	Introduction to Watercolor Painting	4
F.A. 105	Color Theory	4
F.A. 120	Introduction to Oil Painting	4
F.A. 125	Instructional Techniques in Art Education	4
F.A. 121	Survey of Art through the Ages	5
F.A. 240	Art Education in 7th, 8th, and 9th grades	5
F.A. 241	Craft Processes in 7th, 8th, and 9th grades	4

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3. One minor of 27 quarter hours outside the Division of the Arts (a second minor within the Division is optional).
4. Electives to complete requirements for graduation.

Fine Arts Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 1	Drawing	3
F.A. 11	Introduction to Design	4
F.A. 13	Lettering	2
F.A. 17	Introduction to Pottery	2
F.A. 103	Introduction to Watercolor Painting	4
F.A. 116	Craft Processes and Design	4
F.A. 124	Art in the Elementary School	5
F.A.	Elective	3

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Fine Arts Minor for Elementary Education Majors

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 3	Drawing for Elementary School Teachers	3
F.A. 11	Introduction to Design	4
F.A. 12	Lettering for Elementary School Teachers	2
F.A. 17	Introduction to Pottery	3
F.A. 103	Introduction to Watercolor Painting	4
F.A. 124	Art in the Elementary School	5
F.A. 127	Art Crafts in the Elementary School	3
F.A.	Elective	3

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Fine Arts Minor for 7th, 8th, and 9th Grades (Junior High Schools)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
F.A. 1	Drawing	3
F.A. 11	Introduction to Design	4
F.A. 13	Lettering	2
F.A. 14	Drawing and Painting Techniques	3
F.A. 17	Pottery	3
F.A. 240	Art Education in 7th, 8th, and 9th grades	5
F.A. 241	Craft Processes in 7th, 8th, and 9th grades	4
F.A.	Elective	3

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27**FINE ARTS MAJOR****Bachelor of Arts Degree (Liberal Arts)**

The following program is required: (1) Common Courses listed on page 48; (2) At least 48 quarter hours in Fine Arts; (3) One minor outside the Division of the Arts; (4) Electives to complete requirements for graduation.

FINE ARTS MINOR

Courses required for a minor under this program are: F.A. 1, 11, 13, 17, 103 (or 120), 116, 221b.

Description of Courses

1. **DRAWING.** *Three hours credit. (Three hours lecture, two hours laboratory.)*

A foundation course open to anyone who wishes to learn to draw. Visual training, technical procedures, the essentials of perspective. Media: chiefly charcoal and pencil.

3. **DRAWING FOR ELEMENTARY SCHOOL TEACHERS.** *Three hours credit.*

The fundamentals of beginning drawing specifically applied to the needs and methods of elementary school teachers.

4. **FIGURE CONSTRUCTION.** *Three hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, F.A. 1 or equivalent. The study of the human figure, its essential anatomy and construction. The figure as an important motif in design and composition. Study from life.

8. **MODELING AND CARVING.** *Two or three hours credit.*

Creative design in the field of small sculpture. Modeling for various techniques. Sculpture with and without armature, plaster casts, carving in plaster, stone and wood.

11. **INTRODUCTION TO DESIGN.** *Four hours credit.*

A study of the basic elements of design and the techniques or organization. Creative projects in abstract and applied fields.

12. **LETTERING FOR ELEMENTARY SCHOOL TEACHERS.** *Two hours credit.*

Study of letter forms, manuscript writing, poster lettering, blackboard writing, and holiday and unit displays.

13. **LETTERING.** *Two hours credit.*

The basic letter forms and useful variants. A study of layout and design. The course includes work in manuscript, showcard and poster.

14. **DRAWING AND PAINTING TECHNIQUES.** *Three hours credit.*

Techniques in advanced drawing and certain areas of painting for the junior high school.

17. INTRODUCTION TO POTTERY. *Two or three hours credit.*

Creative experience in the design and construction of pottery. Various methods are studied: glazing, casting, firing.

h50. HONORS SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

§65. BEGINNING SCENE DESIGN. (Credit may be obtained in the Arts or Humanities.) *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites, F.A. 1, 11, or equivalent. An introductory course in the fundamentals of scene design and stagecraft. The study includes the basic principles of design and color and their application to scenic design.

100. WEAVING. *Four hours credit.*

A study of the basic fundamentals of threading and weaving on two- and four-harness looms; emphasis on plain and pattern weaving.

102. COMPOSITION. *Three hours credit.*

Prerequisite, F.A. 1 or equivalent. The technical problems of pictorial composition involving the organization of all the visual elements. The course is recommended to precede the courses in painting.

103. INTRODUCTION TO WATERCOLOR PAINTING. *Four hours credit.*

Prerequisite, F.A. 1 or equivalent. A beginning course in watercolor painting.

105. COLOR THEORY. *Four hours credit.*

Prerequisite, F.A. 11. A study of color relationships and organizational principles pertinent to the color unit.

108. CLAY MODELING. *Two or three hours credit.*

The theory and techniques of modeling and casting.

116. CRAFT PROCESSES AND DESIGN. *Four hours credit.*

Prerequisite, F.A. 11. Creative experience in a variety of crafts including leathercraft, simple woodwork and metalcraft, plastics and others.

117. POTTERY. *Two or three hours credit.*

The principles of design applied to mass, volume and decoration. Experience in the coil, slab, potter's wheel, casting, glazing and firing.

120. INTRODUCTION TO OIL PAINTING. *Four hours credit.*

Prerequisite, F.A. 1 or equivalent. A beginning course in oil painting.

121. SURVEY OF ART THROUGH THE AGES. *Five hours credit.*

The important arts of the world studied toward understanding and appreciating the forms produced by man from the dawn of pre-history through all important eras of art. Emphasis is placed on contemporary trends in the arts which dictate the appearance of the world around us today.

123. ART EDUCATION FOR THE SECONDARY SCHOOL. *Four hours credit.*

Philosophy and methods of teaching art at the junior and senior high school levels. A study of the relationship of art activities to the school program of general education.

124. ART IN THE ELEMENTARY SCHOOL. *Five hours credit.*

Methods of teaching art at the elementary school level. Organization of work units at the various grade levels and practical creative experience in a wide variety of media.

125. INSTRUCTIONAL TECHNIQUES IN ART EDUCATION. *Four hours credit.*

Orientation to problems of teaching and teacher preparation in art for the elementary school. This course is to give the progressive teacher the objectives, philosophy, psychology and methods necessary for the teaching of art at various grade levels.

127. ART CRAFTS IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Practical creative experience in a variety of craft processes suitable for the elementary school classroom; includes clay, weaving, papier mache, simple bookkeeping, puppets, and cardboard and paper construction.

130. WORKSHOP IN ART FOR ELEMENTARY TEACHERS. *Three hours credit.*

A study and discussion of the problems in the field of the elementary school art program. Helps the teacher to develop an interest and enthusiasm for the teaching of art through lecture-demonstration and class participation in a wide variety of creative art activities.

133a,b,c,d,e,f. INDIVIDUAL PROBLEMS IN FINE ARTS. *Two or four hours credit each. A maximum of twelve hours credit is permitted.*

Open to advanced students who may pursue creative work according to their individual needs.

135a,b,c. LIFE CLASS. *Two hours credit each.*

Prerequisite, F.A. 1. Opportunity to draw from the human figure.

200. TECHNIQUES OF CREATIVE WEAVING. *Four hours credit.*

Prerequisite, F.A. 100 or equivalent. A study of the problems and various processes of weaving. Emphasis on original designing of patterns for color and texture.

201. TECHNICAL PROCEDURES FOR THE ART TEACHER. *Two hours credit.*

This course deals with the problems in the teaching and supervision of art in the public schools.

202. ADVANCED COMPOSITION. *Three hours credit.*

Prerequisites, F.A. 1 and 2. Advanced problems in pictorial and graphic composition.

203. WATERCOLOR PAINTING. *Four hours credit.*

Prerequisites, F.A. 1, 2, and 103 or equivalent. This course seeks to develop individual expression in creative painting and technical mastery of the medium.

204. FIGURE AND COMPOSITION. *Four hours credit.*

Prerequisites, F.A. 2 and 4 or equivalent. An advanced study of the human figure in composition. Creative work in a variety of media.

209. PRINT MAKING. *Three hours credit.*

A study of print processes; etching, dry-point, lithograph, stencil, wood-cut and block printing. Experience is offered in the making of prints and the adaptation of print making to secondary school uses.

211. DESIGN, COLOR AND COMPOSITION PROBLEMS. (Summers only.) *Three hours credit.*

A study of the elements and principles of design, color relationships and organizational principles of color units and the organization of the visual elements relating to pictorial composition.

212. PROBLEMS IN DESIGN. *Three hours credit.*

Prerequisite, F.A. 11 or equivalent. A study of the techniques of organization of the design variables. Opportunity for individual growth in solving design problems in areas of student's choice.

216. CREATIVE JEWELRY AND DESIGN IN METAL. *Four hours credit.*

Prerequisite, F.A. 11. An experimental approach to the problem of contemporary jewelry and metalwork. Emphasis on the techniques of enameling on copper, but also including the exploration of combining silver, wood and plastic.

219. THE SILK SCREEN PRINTING PROCESS. *Four hours credit.*

The study of various methods and techniques in contemporary graphic process of silk screening. Applied problems in all the methods with emphasis on serigraphy; blockout, paper stencil, profilm, tuche, and the photography stencil method.

220. OIL PAINTING. *Four hours credit.*

Prerequisite, F.A. 120 or equivalent. This course seeks to develop individual expression in creative painting and technical mastery of the medium.

221a. ART HISTORY I. *Five hours credit.*

A study of the development of art from prehistoric time to and including the Gothic Age.

221b. ART HISTORY II. *Five hours credit.*

A study of the development of art from the Renaissance to the present day.

225. FIGURE PAINTING. *Four hours credit.*

Prerequisite, F.A. 120 or equivalent. Painting in oils from the human figure.

228. SECONDARY SCHOOL ART WORKSHOP. (Summers only.) *Three hours credit.*

A survey and demonstration of new ideas in art techniques and materials essential to a secondary school art program. Student participation in selected areas.

230. WORKSHOP IN ART FOR ELEMENTARY TEACHERS. *Three hours credit.*

This course is designed to give the graduate student a philosophy of art education, an understanding of and an opportunity to participate in the essential art activities for the elementary school; to develop his interest and enthusiasm for the teaching of art. Emphasis is given to the creative approach and the integration of the art activities with the entire school program.

§232. ADVANCED SCENE DESIGN. (Credit may be obtained in The Arts or Humanities.) *Three hours credit.*

Prerequisite, F.A. 65 or equivalent. A study of the techniques and problems of scenic design. The esthetic as well as the practical problems of the designer are presented. Settings, properties, costuming, and lighting are practiced within the theatre laboratory.

233a,b,c,d,e,f. INDIVIDUAL PROBLEMS IN FINE ARTS. *Two or four hours credit each. A maximum of twelve hours credit is permitted.*

Open to advanced students who may pursue creative work according to their individual needs.

240. ART EDUCATION IN 7TH, 8TH, AND 9TH GRADES. *Five hours credit.*

A study and discussion of the problems of teaching and teacher preparation of art at the junior high school level, with emphasis on objectives, philosophy, and methods in the areas of drawing, painting, design and graphic arts.

241. CRAFT PROCESSES IN 7TH, 8TH AND 9TH GRADES. *Four hours credit.*

Creative experiences in the craft activities adapted to the interests and needs of the junior high school student.

§264. INDUSTRIAL ARTS DESIGN. (Credit may be obtained in Industrial Arts or Fine Arts.) *Three hours credit.*

Principles of design applied to the various areas of industrial arts.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and techniques of research in the area of the graduate major. This course is required of all first-quarter graduate students. Taught jointly with majors from Industrial Arts and Home Economics.

305. ADVANCED COLOR THEORY. *Four hours credit.*

Prerequisite, F.A. 105 or equivalent. An intensive study of creative color composition.

308. SCULPTURE. *Two, three, or five hours credit.*

The theory and techniques of sculpture, with a study of the processes. Creative work in a choice of plastic media.

316. CRAFT PROCESSES AND DESIGN FOR SECONDARY SCHOOLS. *Four hours credit.*

A study of design and artcrafts adapted to secondary school levels.

317. CERAMICS. *Two, three, or five hours credit.*

Prerequisite, F.A. 17 or equivalent. Historical research in design and processes of ceramicware. Individual creative and technical competence stressed.

322. INDIVIDUAL STUDIES IN ART EDUCATION. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Provides for independent study in fields of specialization not provided for in formal classes. Qualified students are expected to spend a minimum of twenty-five clock hours for each quarter hour of college credit. Paper required.

324. CREATIVE ACTIVITIES IN THE ELEMENTARY SCHOOL. *Five hours credit.*

Research and creative experience in the various art activities of the elementary school art education program.

327. PROBLEMS AND TECHNIQUES IN HANDCRAFTS FOR ELEMENTARY SCHOOLS. *Four hours credit.*

A workshop study of the recent trends in methods and techniques of craft work suited to the elementary school classroom.

328. THE CURRICULUM IN ART EDUCATION. (Summers only.) *Four hours credit.*

A review of the best literature on the content and organization of the curriculum in general education, and the professional literature in art education. Analysis and evaluation of courses of study, the building of curriculums and significant units for teaching art.

399. THESIS. *Eight hours credit.***HOME ECONOMICS MAJOR****Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
H.E. 70	- - Clothes and Personality - - - - -	2
H.E. 71	- - Textile Fundamentals - - - - -	3
H.E. 72	- - Elementary Clothing Construction - - - - -	3
H.E. 73	- - Advanced Clothing Construction - - - - -	4
H.E. 77	- - Family Meal Cookery and Service - - - - -	4
H.E. 81	- - Art in Home Living - - - - -	2
H.E. 98	- - Elementary Nutrition - - - - -	3

H.E.	180	- -	Family Relationships	- - - - -	3
H.E.	191a	- -	Management in Family Living	- - - - -	3
H.E.	191b	- -	Home Management Residence	- - - - -	2
H.E.	198	- -	Meal Planning and Service	- - - - -	4
H.E.	219	- -	Infant and Child Care	- - - - -	4
H.E.	260	- -	Development and Guidance of the Young Child	- - - - -	3
H.E.	268	- -	Family Housing	- - - - -	2
H.E.	275	- -	Home Furnishings	- - - - -	3
H.E.	284	- -	Demonstration Techniques	- - - - -	2

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3. The 29 quarter hours listed under the requirements for a credential to teach Vocational Homemaking in secondary schools in Colorado.

OR

One minor of 27 quarter hours selected in any Division.

4. It is required that at least 12 hours of elective courses be chosen from outside the Division of the Arts to strengthen the qualifications for vocational teaching.

5. Electives to complete 180 quarter hours of academic credit required for graduation. Recommended electives: H.E. 165, 183, 199, 261, 295; F.A. 4 hours.

Credential for Teaching Vocational Homemaking

In order to qualify for a Vocational Homemaking Credential under the State Board for Vocational Education, the following credits are required also. If these courses are successfully completed, a minor is not required for the Bachelor of Arts Degree with teaching certificate.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 78	Principles of Food Preparation	- - - - -	4
H.E. 188	Costume Design	- - - - -	3
H.E. 293	Adult Education in Homemaking	- - - - -	3
Bus. 54	Consumer Economic Problems	- - - - -	3
Ed. 228a	Mental Hygiene and Emotional Adjustment	- - - - -	3
Ed. 272	Principles of Vocational Education	- - - - -	3
Chem. 40a	Principles of Chemistry I	- - - - -	5
	Electives in the Science Division	- - - - -	5

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Home Economics Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 70	Clothes and Personality	- - - - -	2
H.E. 72	Elementary Clothing Construction	- - - - -	3
H.E. 94	Elementary Cookery and Food Service	- - - - -	4
H.E. 98	Elementary Nutrition	- - - - -	3
H.E. 180	Family Relationships	- - - - -	3
H.E. 191a	Management in Family Living	- - - - -	3
H.E. 275	Home Furnishings	- - - - -	3
	Electives in Home Economics	- - - - -	6

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Recommended electives for Home Economics minors who want to teach homemaking in the secondary schools:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 219	- - Infant and Child Care	- - - -	4
Ed. 150j	- - Methods and Observation of Teaching Home Economics in the Secondary School	- - - -	3
H.E. (Selected)	- - - - -	- - - -	5

HOME AND FAMILY LIVING MAJOR
Bachelor of Arts Degree (Liberal Arts)

The following program is required: (1) Common Courses listed on page 48; (2) At least 48 quarter hours in Home Economics; (3) One minor of 27 quarter hours selected in any division; (4) Electives to complete requirements for graduation.

Home and Family Living Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 70	- - Clothes and Personality	- - - -	2
H.E. 71	- - Textile Fundamentals	- - - -	3
H.E. 72	- - Elementary Clothing Construction	- - - -	3
H.E. 94	- - Elementary Cookery and Food Service	- - - -	4
H.E. 98	- - Elementary Nutrition	- - - -	3
H.E. 191a	- - Management in Family Living	- - - -	3
H.E. (electives)	- - - - -	- - - -	9
			27

DIETETICS MAJOR
Bachelor of Arts Degree (Liberal Arts)

The following program is required: (1) Common Courses listed on page 48; (2) At least 48 quarter hours in Dietetics; (3) One minor of 27 quarter hours preferably in the Division of the Sciences to include Bot. 122, General Bacteriology (5 hours); Chem. 40a, Principles of Chemistry I (5 hours); Chem. 40b, Principles of Chemistry II (5 hours); Chem. 40c, Introductory Organic Chemistry (5 hours); Chem. 247, Biochemistry (5 hours); (4) Electives to complete requirements for graduation.

DIETETICS MAJOR
Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.E. 70	- - Clothes and Personality	- - - -	2
H.E. 71	- - Textile Fundamentals	- - - -	3
H.E. 72	- - Elementary Clothing Construction	- - - -	3
H.E. 73	- - Advanced Clothing Construction	- - - -	4
H.E. 77	- - Family Meal Cookery and Service	- - - -	4
H.E. 98	- - Elementary Nutrition	- - - -	3
H.E. 175	- - Dietetics	- - - -	3
H.E. 180	- - Family Relationships	- - - -	3

H.E.	187	- -	Institution Management	- - - - -	5
H.E.	219	- -	Infant and Child Care	- - - - -	4
H.E.	260	- -	Development and Guidance of the Young Child	- - - - -	3
H.E.	275	- -	Home Furnishings	- - - - -	3
H.E.	282	- -	Nutrition in Disease	- - - - -	3
H.E.	284	- -	Demonstration Techniques	- - - - -	2
H.E.	289	- -	Institution Economics	- - - - -	2
			Elective	- - - - -	1
					48

3. One minor of 27 quarter hours preferably in the Division of Sciences to include Bot. 122, General Bacteriology (5 hours); Chem. 40a, Principles of Chemistry I (5 hours); Chem. 40b, Principles of Chemistry II (5 hours); Chem. 40c, Introductory Organic Chemistry (5 hours); Chem. 247, Biochemistry (5 hours).

4. 27 to 34 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

American Dietetics Association Internship Requirements

In order to qualify for an internship approved by the American Dietetics Association, the following credits are required also:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>			
H.E. 78	- - Principles of Food Preparation	- - - - - 4			
H.E. 198	- - Meal Planning and Service	- - - - - 4			
H.E. 199	- - Preservation of Food	- - - - - 2			
H.E. 285	- - Experimental Cookery	- - - - - 3			
H.E. 286	- - Quantity Cookery	- - - - - 2			
Econ. 30	- - Introductory Economics	- - - - - 5			
Zool. 217	- - Human Physiology	- - - - - 4			
					26

Description of Courses

h50. HONORS SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

70. CLOTHES AND PERSONALITY. *Two hours credit.*

A study of the factors which influence one's personality: posture, grooming, the application of art principles to clothing selection for figure and facial types, appropriate accessories and care of clothing. Opportunities are given to practice acceptable behavior in social situations.

71. TEXTILE FUNDAMENTALS. *Three hours credit.*

A basic study of natural and man-made fibers, with their properties and uses. Yarn construction and modern methods of texturizing yarns is included, with emphasis on the newer finishes on old and new fabrics.

72. ELEMENTARY CLOTHING CONSTRUCTION. *Three hours credit. (One hour lecture, four hours laboratory.)*

Basic principles used in garment construction applied through actual construction of garments. Common fitting problems are studied.

73. ADVANCED CLOTHING CONSTRUCTION. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Problems of clothing construction and fitting using more difficult fabrics, designed for the more advanced student.

§74. MERCHANDISE INFORMATION (TEXTILES). (Credit may be obtained in Business or Home Economics.) *Two hours credit.*

For description of this course, see page 112.

77. FAMILY MEAL COOKERY AND SERVICE. *Four hours credit.*

A study of the fundamental processes of cookery. Basic principles of nutrition and meal planning are used in the preparation and serving of family meals. This course open only to majors except by special permission.

78. PRINCIPLES OF FOOD PREPARATION. *Four hours credit.*

Prerequisite, H.E. 77 or equivalent. Emphasis is given to principles of cooking involved in more difficult food preparation. Laboratory work is planned to show the relationship between scientific principles and cookery processes. Food products are evaluated. This course is open only to majors except by special permission.

81. ART IN HOME LIVING. *Two hours credit.*

Course is designed to develop an appreciation and understanding of color and the other art elements of design with the application of art principles or guides to personal and home living. Students are encouraged to use creative ideas in solving art problems. Opportunities provided to improve aesthetic judgment in making everyday selections.

94. ELEMENTARY COOKERY AND FOOD SERVICE. *Four hours credit. (Two hours lecture, four hours laboratory.)*

This is a non-technical course in food preparation planned for men or women students desiring more knowledge of the fundamental processes of cookery and food marketing. Simple meals and party refreshments will be planned, prepared and served.

§98. ELEMENTARY NUTRITION. (Credit may be obtained in Home Economics or Health and Physical Education.) *Three hours credit.*

Enables students to select food suited to their needs in the light of the newer knowledge of nutrition and individual physical fitness.

165. HOUSEHOLD PHYSICS. *Four hours credit. (Three hours lecture, two hours laboratory.)*

The physical principles of heat, mechanics, electricity and light are taught with the needs of Home Economics majors emphasized. The purchase and care of household equipment is presented thru demonstrations and field trips.

175. DIETETICS. *Three hours credit.*

Prerequisite, H.E. 98 or equivalent. A review of the fundamentals of human nutrition is made. Emphasis given to recent developments in human nutrition. Diets for average American families of various income levels planned. The diet of the young child in relation to the diet of the family is studied. Ten hours laboratory experiences arranged per quarter.

180. FAMILY RELATIONSHIPS. *Three hours credit.*

The relationship of the individual to his human contacts and the establishment of the successful American home are studied.

183. HOME NURSING. *Two hours credit.*

Designed to develop the ability to give simple nursing care to a sick person in the home. Principles of care are stressed and nursing procedures demonstrated and practiced.

187. INSTITUTION MANAGEMENT. *Five hours credit. (Four hours lecture, two hours laboratory.)*

The organization and management of various types of institutions. Specific emphasis is given to problems of personnel, the physical plant, and efficient work schedules. The food-service areas of each institution are selected for study.

188. COSTUME DESIGN. *Three hours credit. (One hour lecture, four hours laboratory.)*

Prerequisites, H.E. 72 and 73 or equivalents. Some basic problems are presented in draping and flat pattern making. A personal master pattern is developed for each student. Creative problems are planned to develop skill in the application of art principles to costume.

189. ADVANCED CLOTHING CONSTRUCTION. *Two hours credit. (One hour lecture, two hours laboratory.)*

Prerequisites, H.E. 72, 73, 188. Garments are constructed from designs created in H.E. 188. This provides the student with an opportunity to develop greater skill in solving construction and fitting problems.

191a. MANAGEMENT IN FAMILY LIVING. *Three hours credit.*

A study of management and its relationship to successful home living. Techniques used in managing the family's resources to achieve desired ends are stressed. Work simplification, efficient planning and management of family finances are studied in detail.

191b. HOME MANAGEMENT RESIDENCE. *Two hours credit.*

Prerequisites, H.E. 77, 78, 191a, or equivalent. Students live in the Margaret Roubush Home Management House on the campus for a period of six weeks. There they put into practice desirable standards of home living.

198. MEAL PLANNING AND SERVICE. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. This course provides more practice in individual and group work in planning, preparing, and serving meals. Opportunities are planned to show how to solve some of the problems of the hostess in serving food on various occasions in the modern American home.

199. PRESERVATION OF FOOD. *Two hours credit. (One hour lecture, two hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. Discussions and laboratory practice in home methods of food preservation by the water bath, pressure cooker, and quick freeze techniques. Observations of commercial methods of food preservation.

\$203. DEVELOPMENT AND GUIDANCE OF THE YOUNG CHILD.
(Credit may be obtained in Educational Psychology and Guidance or Home Economics.) *Three hours credit.*

For description of this course, see page 117.

\$209. NEW TRENDS IN NUTRITION. (Credit may be obtained in Home Economics or Health and Physical Education.) *Four hours credit.*

A detailed study of the value of carbohydrates, fats, proteins, minerals and vitamins in human nutrition. A comprehensive study of nutrition problems in health education. Food as an aid to positive health is stressed. A study of the food needs of growing children in the elementary and secondary school is made.

219. INFANT AND CHILD CARE. *Two or four hours credit.*

A study of the growth pattern from conception through infancy and the third year of life. Course deals with prenatal as well as postnatal factors which influence early development. Emphasis upon guidance and provisions for care including the responsibilities of adults for providing a favorable home environment. The effect of these factors on later years is also emphasized. Limited observation of children.

222. PROBLEMS IN HOME ECONOMICS. *One to four hours credit for one problem; a maximum of eight hours permitted.*

A study of current trends and selected problems in housing the family and in the planning of attractive, well-balanced family meals. Consideration of present conditions and corresponding problems in managing the family resources.

243. ART IN CONTEMPORARY LIVING. *Three hours credit.*

This class deals with the following problems: selection of clothing for the individual man or woman, selection and arrangement of furnishings suitable to the modest home, correct serving of refreshments and attractive, inexpensive table decorations.

244. PERSONAL IMPROVEMENT FOR THE TEACHER. *Three hours credit.*

A workshop in the personal improvement of the teacher. Emphasis will be given to the problems of the individual. Techniques for the development of positive mental health, expressive personality traits and attractive personal appearance will be stressed.

§261. PARTICIPATION IN PRESCHOOL. (Credit may be obtained in Education or Home Economics.) *Three hours credit.*

For description of this course, see page 102.

264. WORKSHOP IN PRESCHOOL. *Three hours credit.*

Prerequisite, H.E. 203. A study of the materials of nursery and preschool as they are needed and prepared by the teacher. Musical and dramatic play instruments, paint, clay and related art materials are utilized. Their sources, construction and arrangements are emphasized.

265. THE FAMILY. (Summers only.) *Two or four hours credit.*

A study of the family in present day America. Considers functions of the family and forces affecting it; variations in family values and practices; roles, adjustments, relations and problems of adult and child members. Designed for teachers of adolescents and adults.

266. THE TEACHING OF FAMILY LIVING. (Summers only.) *Two or four hours credit.*

The needs of adolescents and the place of family living in the curriculum. Objectives, course and unit planning, content, teaching techniques and evaluation of achievement are included. Reference materials, aids and resources and their use. Students receive help with individual problems.

267. METHODS IN THE TEACHING OF HOMEMAKING. (Summers only.) *Four hours credit.*

This course is planned for home economics majors and graduate students who wish to take their methods in the summer quarter. A study of the philosophy of homemaking education, characteristics and needs of adolescents, organization of the curriculum, methods and materials.

268. FAMILY HOUSING. *Two hours credit.*

A study of housing as it relates to family living. Students learn basic principles and acquire information needed for solving housing problems of typical family groups. Students consider the financing of housing, family needs, and procedures in buying, renting, and building. Plans are made for building and remodeling family housing units.

271. TEXTILES. *Three hours credit.*

This course is especially desirable for students who wish to gain valuable information as consumers of textiles. Fibers, yarns, finishing agents will be studied in relation to selection, use and care of fabrics.

274. HOUSEHOLD EQUIPMENT. (Summers only.) *Two to four hours credit.*

Through individual reports, projects, field trips, demonstrations, and classroom discussions, a body of knowledge and criteria are developed by which equipment and utensils may be evaluated. Standard products will be studied in the light of the present-day needs of the modern American home. Basic scientific principles are applied.

275. HOME FURNISHINGS. *Three hours credit.*

A study of the application of art principles to the selection of furnishings for homes of various types. Emphasis is given to the importance of considering the needs and resources of the family for intelligent choice, arrangement and care of furnishings.

276. PROBLEMS IN CLOTHING CONSTRUCTION. (Summers only.)
Four hours credit.

Prerequisites, H.E. 72, 73 or permission of instructor. This course is planned for graduate students with a background of knowledge of the fundamentals of clothing construction. Opportunity will be presented to develop greater skill in construction processes and fitting techniques.

277. NUTRITION AND THE SCHOOL LUNCH PROGRAM. *Two or four hours credit.*

A study of the school lunch program, its organization and management, its effect on the food habits and nutritional state of the elementary and secondary school pupil, and its place as an integral part of the total school program. A review of the nutrition needs of the growing child will be made.

279. PRESERVATION OF FOOD. (Summers only.) *Two or four hours credit.*

Prerequisites, H.E. 77 or equivalent. Open kettle, water bath, pressure cooker, quick freeze methods of food preservation are discussed and home methods of these types of food preservation are practiced in the laboratory. The making of jellies, jams, pickles and relishes is discussed and products are made.

282. NUTRITION IN DISEASE. *Three hours credit.*

Prerequisite, H.E. 98. A study of the fundamental principles involved in the treatment of disease through diet. Ten hours laboratory during the quarter required.

284. DEMONSTRATION TECHNIQUES. *Two to four hours credit.*

Prerequisites, H.E. 72, 77 or equivalent. Practice in the techniques of demonstrating before audiences. All phases of the Home Economics field will be used to furnish types of demonstrations. Four single periods per week.

285. EXPERIMENTAL COOKERY. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. An opportunity to determine the effects of temperature, time, and different manipulations on foods. Commercial products are tested and compared with home methods of preparation.

286. QUANTITY COOKERY. *Four hours credit. (Three hours lecture, two hours laboratory arranged.)*

Prerequisites, H.E. 77, 78, 98 or equivalent. Meal planning, techniques of food buying and application of cookery principles to large quantity food service. The facilities of student dining halls and the school lunch program are used as practice laboratories.

288. CREATIVE PROBLEMS IN DRESS DESIGN. (Summers only.)
Four hours credit.

Prerequisites, H.E. 70, 72, 73, or equivalent. Basic problems in draping on dress forms and in the drafting of flat patterns. Opportunity is provided for creating designs for different figure types in a variety of textured fabrics. Some consideration is given also to the design of simple decorative details and appropriate accessories.

289. INSTITUTION ECONOMICS. *Two hours credit.*

A study of the records necessary for the efficient administration of various types of institutions. Simple bookkeeping mechanics are developed and elementary principles of food cost accounting are studied. Criteria are established for the buying of equipment needed in various types of institutions.

290. APPLIED HOME FURNISHINGS. (Summers only.) *Two or four hours credit.*

This course includes various projects which will give students experience in the application of art principles to interior decoration. Individual and/or class projects in the construction of draperies, vanity skirts, bedspreads and box cushions.

291. MANAGING FAMILY RESOURCES. *Two to four hours credit.*

A study of the management of human and material resources in achieving family goals. Techniques used in managing the family's resources to achieve desired ends are stressed. Work simplification, efficient planning and management of family finances are studied in detail.

293. ADULT EDUCATION IN HOME MAKING. *Three hours credit. (Two hours lecture, two hours laboratory.)*

A study of the philosophy of adult education, procedures used in promoting and organizing adult programs, and methods used in teaching adults. Includes observation and experience in working with adults.

294. INSTRUCTION AIDS IN HOME ECONOMICS. *Two to four hours credit.*

Students develop and use criteria in evaluating teaching materials and aids. Selecting, organizing, and storing of aids is included. Visual aids and devices used in teaching various phases of homemaking are planned and prepared. Printed materials are evaluated.

295. TAILORING. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, H.E. 73 or equivalent. Methods used in custom tailoring for lined suits and coats are developed.

298. ADVANCED FOOD PREPARATION. (Summers only.) *Four hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, H.E. 77, 78 or equivalent. A study dealing with the problems in food service which confront the Home Economics teacher. This course will cover the service of food in the home as well as catering for school banquets, receptions and other special school functions where food is served.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

Prerequisite, graduate standing. This is a study of the literature and research in the arts, criteria for the selection of graduate work in home economics for subsequent quarters, and research techniques. Required of all graduate majors in home economics. Taught jointly with fine arts and industrial arts majors.

301. SUPERVISION OF STUDENT TEACHING IN HOME ECONOMICS. *One and one-half to four hours credit.*

Prerequisite, permission of instructor. The qualifications, objectives and responsibilities of the supervising teacher are analyzed. Supervision techniques and methods of evaluating the development of the student teacher are stressed.

302. TEACHING PROBLEMS IN HOME MAKING. (Summers only.) *Two to four hours credit.*

Modern methods and trends in homemaking education. Problems of the individual teacher are studied and assistance is given her in working out practical solutions. Common problems are considered by the entire group.

303. CURRICULUM IN HOME MAKING. *Two to four hours credit.*

This course helps teachers improve their ability to plan functional programs in homemaking and to solve other curriculum problems. Implications of social and economic conditions, research findings, trends in education and current issues are determined. Modern methods of program planning are studied. Students have experience in curriculum planning.

304. EVALUATION IN HOME MAKING EDUCATION. (Summers only.) *Two to four hours credit.*

A study of principles and procedures in appraising student achievement of educational goals. Emphasis on evaluation as an integral part of the teaching and learning process. Experience provided in developing procedures and instruments for use in teaching situations.

306. HISTORY OF COSTUME. (Summers only.) *Four hours credit.*

A study of the development of costume through the ages and its influence on the designs of present day clothing. The development of costumes in the couturier houses of Europe and America is considered.

307. CLOTHING ECONOMICS. (Summers only.) *Four hours credit.*

A study of family and individual clothing problems: standardization, labeling, consumer protection, recent textile developments, consumer purchasing surveys, custom and wholesale production methods. The relation of fashion to manufacturing and consumption of clothing.

322. INDIVIDUAL STUDIES IN HOME ECONOMICS. (Summers only.) *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

The course provides for independent study, particularly in those phases of a field of specialization not provided for in formal class courses. A comprehensive written report of each study is required. Admission by special permission of the major professor.

371. ADVANCED TEXTILES. (Summers only.) *Four hours credit.*

Prerequisite, H.E. 271 or equivalent. A study of recent textile developments. Problems of individual interest are considered. A study of Oriental, European, English and American textiles, the synthetic fibers and recent developments in textiles.

385. RESEARCH IN FOODS. (Summers only.) *Four hours credit.*

Prerequisites, H.E. 77, 78 or equivalent. A study of the recent findings in food research. Opportunity is given for individual investigation in various problems of food preparation. Valid techniques of experimentation are stressed.

386. PRINCIPLES AND TECHNIQUES OF COOKERY. *Four hours credit.*

Prerequisites, two quarters of foods preparation. A study of the scientific principles which are basic to protein, fat and carbohydrate cookery. The principles involved in hydration, crystallization, leavening, emulsions and other cookery problems will be included. The relationships between techniques of food preparation and principles involved will be stressed.

396. DRESS DESIGN IN DRAPING. (Summers only.) *Four hours credit.*

Prerequisite, H.E. 188 or equivalent. Problems to develop original discrimination and techniques in costume design, developed with the means of draping fabrics. A problem is selected and done on the student's own initiative.

398. FAMILY MEAL MANAGEMENT. (Summers only.) *Four hours credit.*

This course is planned to give the graduate student further opportunity to develop her skill in the preparation and service of meals. Individual responsibility is stressed and homelike occasions are duplicated as nearly as possible in the laboratory situation.

399. THESIS. *Eight hours credit.***INDUSTRIAL ARTS MAJOR****Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours	Credit
I.A. 34	Introduction to Industrial Arts	- - - - -	4
I.A. 264	Industrial Arts Design	- - - - -	3
I.A. 150a	Bench Woodwork	- - - - -	3
I.A. 150b	Intermediate Woodwork	- - - - -	3
I.A. 150c	Machine Woodwork	- - - - -	3
I.A. 55a	Introduction to General Metal	- - - - -	3
I.A. 57a	Elements of Art Metal and Metal Spinning	- - - - -	3
I.A. 155a	Elements of Machine Lathe Operation	- - - - -	2
I.A. 161a	Principles of Drafting	- - - - -	2
I.A. 161b	Principles of Drafting	- - - - -	3
I.A. 161c	Principles of Drafting	- - - - -	3
I.A. (Selected)*		- - - - -	6
Electives		- - - - -	10
			48

*Required courses in the major. Select six hours from:

Course Number	Course Title	Hours	Credit
I.A. 234	History of Industrial Arts	- - - - -	4
I.A. 235	Philosophy of Industrial Arts	- - - - -	3
I.A. 236	Principles of General Shop Organization	- - - - -	3
I.A. 238	Current Theory and Practice in the Arts	- - - - -	3
I.A. 240	Course Organization in Industrial Arts	- - - - -	3
I.A. 241	The Place of the Arts in General Education	- - - - -	3

3. Two minors of 27 quarter hours, one of which must be outside the Division of the Arts.

4. Free electives to complete 180 quarter hours of academic credit for graduation.

Industrial Arts Minor

Course Number	Course Title	Hours	Credit
I.A. 150a	Bench Woodwork	- - - - -	3
I.A. 150b	Intermediate Woodwork	- - - - -	3
I.A. 150c	Machine Woodwork	- - - - -	3
I.A. 161a	Principles of Drafting	- - - - -	2
I.A. 161b	Principles of Drafting	- - - - -	3
I.A. 161c	Principles of Drafting	- - - - -	3
I.A. (electives)		- - - - -	10
			27

Alternate Minor may consist of Woodwork — 8 hours, Metalwork — 8 hours, Drafting — 8 hours and electives — 3 hours. Consult instructors in each area of work about the selection of courses.

A second alternate minor to meet the requirements for teaching in a general shop may be elected. Select 27 hours from the following courses with the advisement of the department.

Course Number	Course Title	Hours	Credit
I.A. 141a,b,c,d	Graphic Arts	- - - - -	2-10
I.A. 150a,b,c	Bench Woodwork	- - - - -	3-9
I.A. 55a	Introduction to General Metal	- - - - -	3
I.A. 155a	Elements of Machine Lathe Operation	- - - - -	2
I.A. 157a	Elements of Jewelry Work	- - - - -	2

I.A.	157b	- -	Advanced Jewelry and Lapidary Work	- - -	3
I.A.	257	- -	Advanced General Metalwork	- - -	3
I.A.	46a,b	- -	Bookbinding	- - -	2-5
I.A.	146c,d	- -	Bookbinding	- - -	2-5
I.A.	147a,b	- -	General Leathercraft	- - -	2-5
I.A.	148a,b	- -	General Plastics	- - -	2-5
I.A.	161a,b,c,d,e,f	- -	Principles of Drafting	- - -	2-16
I.A.	163a,b	- -	General Shop Electricity	- - -	2-5
F.A.	1	- -	Drawing	- - -	3
F.A.	13	- -	Lettering	- - -	2
F.A.	117	- -	Pottery	- - -	2-3
F.A.	116	- -	Craft Processes and Design	- - -	4
F.A.	100	- -	Weaving	- - -	4

Ed. 150b, Introduction to Student Teaching in the Secondary School, and Ed. 150c, Methods of Teaching in the Secondary School (five hours credit), do not count toward the minor but are recommended as electives.

Course substitutions will be made for students who expect to become craft counselors or playground instructors.

Description of Courses

34. INTRODUCTION TO INDUSTRIAL ARTS. *Four hours credit.*

The basis for the development of a modern philosophy of industrial arts. Orientation to problems of teaching and teacher preparation. Required of all freshman majors in Industrial Arts. Two hours weekly of formal class work, four hours of assigned laboratory work.

h50. HONORS SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

54a,b. WORKSHOP IN INDUSTRIAL ARTS FOR ELEMENTARY TEACHERS. *Three hours credit each.*

Development of basic skills through elementary work in wood, metals, and other materials easy to get. Adaptation of work to classroom or small shop. Creative work with limited equipment.

55a. INTRODUCTION TO GENERAL METAL. *Three hours credit.*

First in sequence of metal courses. Basic shop procedures, objectives, and relationship to other types of work in metal. Emphasis on elementary bench metal, sheet metal, and forge practice.

57a. ELEMENTS OF ART METAL AND METAL SPINNING. *Three hours credit.*

Prerequisite, I.A. 55a. Elementary course in art metalwork including bowl and tray construction, planishing, chasing, peening, soft and hard soldering, aluminum spinning and finishing in copper and aluminum.

57b. ADVANCED ART METAL AND METAL SPINNING. *Three hours credit.*

Prerequisite, I.A. 57a. A course in advanced art metal concerned with the construction of copper, aluminum, brass, German silver, and giving experience in extreme raising, chasing and repousse, and metal spinning.

59a. ELEMENTS OF GAS AND ELECTRIC WELDING. *Two hours credit.*

Prerequisite, I.A. 55a. An introductory course in the field of gas and electric welding of mild steel and simple fabrication of projects.

59b. ADVANCED GAS AND ELECTRIC WELDING. *Three hours credit.*

Prerequisite, I.A. 59a. Advanced course in gas and electric welding which will include flat, horizontal, vertical, and overhead welding, bronze welding, cast iron welding, use of low temperature alloy rods, and the fabrication of projects and teaching aids peculiar to this area.

130. TEACHING THE INDUSTRIAL ARTS. (Summers only.) *Three hours credit each unit.*

Problems in planning industrial arts courses. Philosophy, objectives, evaluation, and school shop organization briefly considered. Offered in Pre-Session alternate years.

Unit a. Metal and woodwork.

Unit b. Graphic arts, plastics and leather.

137a,b. PROBLEMS IN UPHOLSTERY. *Two hours credit each.*

Techniques and processes in upholstery using various types for all grade levels.

141a,b,c,d. GRAPHIC ARTS. *Two to ten hours credit.*

Experience with the fundamental operations used in a school graphic arts shop; information as to tools, machines, and materials; the place of printing in community life, and the relationship between printing and other subjects of the curriculum.

Unit a. *Three hours credit.*

Unit b. *Two hours credit.*

Unit c. *Three hours credit.*

Unit d. *Two hours credit.*

146a,b,c,d. BOOKBINDING. *Two to ten hours credit.*

The development of basic and advanced skills in hand bookbinding. Adaptation of the work to the general shop and industrial arts program of the public schools. Two to three hours credit each unit.

147a,b. GENERAL LEATHERCRAFT. *Two to five hours credit.*

Development of basic techniques in leatherwork. Tool designing and tool making for camps and school shops. Study of tanning and relation of work to other areas.

Unit a. *Three hours credit.*

Unit b. *Two hours credit.*

148a,b. GENERAL PLASTICS. *Two to five hours credit.*

An opportunity to become proficient in working with the many kinds of plastics for either a unit or general shop.

Unit a. *Two hours credit.*

Unit b. *Three hours credit.*

§149. BOOKBINDING FOR SCHOOL LIBRARIANS. *Three hours credit. (Credit may be obtained in Industrial Arts or Library Science.)*

Opportunity to develop skills in library binding and repairing. A study of handmade equipment, purchasing of supplies, and economical ways of binding books.

150a. BENCH WOODWORK. *Three hours credit.*

Courses "a", "b", and "c" progress from elementary to more advanced work. Study of woods, materials and supplies parallel development of skills.

150b. INTERMEDIATE WOODWORK. *Three hours credit.*

A continuation of I.A. 150a, with emphasis on more advanced hand wood-working processes.

150c. MACHINE WOODWORK. *Three hours credit.*

Prerequisites, I.A. 150a,b or equivalent. Experience in the use of common machines found in the average woodworking shop.

150d. ADVANCED FURNITURE AND CABINET MAKING. *Three hours credit.*

Prerequisites, I.A. 150a,b or equivalent. Emphasis on machine use. Students design and construct period and modern pieces of furniture. Study of production methods in industry. Advanced upholstery and wood-finishing techniques.

150e. WOODFINISHING. *Two hours credit.*

Prerequisite, I.A. 150a or equivalent. Techniques and processes in woodfinishing. Experience with traditional and new types of materials. A study of the needs of public school shops in this area of work.

151a. EQUIPMENT AND MAINTENANCE PROBLEMS IN WOOD.
Three hours credit.

Prerequisites, I.A. 150a,b,c. Upkeep and repair of woodworking tools and machines. Selection and purchases of woodworking tools, machines and supplies for a school shop.

151b. EQUIPMENT AND MAINTENANCE PROBLEMS IN METALS.
Three hours credit.

Prerequisites, I.A. 55a, 57a or equivalent. Upkeep and repair of metalwork tools and machines. Selection and purchase of metalwork tools, machines and supplies for a school shop.

153a,b. WOODTURNING. *Two hours credit each.*

Prerequisite, I.A. 150a or equivalent.

Unit a. Development of basic skills in woodturning.

Unit b. The use of the lathe to supplement bench and machine woodwork.

155a. ELEMENTS OF MACHINE LATHE OPERATION. *Two hours credit.*

Prerequisite, I.A. 55a. An introductory unit concerned with the basic operations performed on a machine lathe including straight and taper turning, thread cutting, and other operations.

155b. ADVANCED MACHINE TOOL OPERATION. *Three hours credit.*

Prerequisite, I.A. 155a. Advanced course in machine lathe operation and elementary work with the shaper, milling machine and surface grinder.

157a. ELEMENTS OF JEWELRY WORK. *Two hours credit.*

Prerequisites, I.A. 55a, 57a or equivalent. An introduction to the basic process of jewelry construction including silver soldering, sawing, filing, ring constructions, simple silversmithing and setting stones.

157b. ADVANCED JEWELRY AND LAPIDARY WORK. *Three hours credit.*

Prerequisite, I.A. 157a. This course is designed to give advanced work in jewelry construction and silversmithing with the student cutting and polishing his own setting as an introduction to lapidary work.

161x,y. PRINCIPLES OF DRAFTING. *Two to sixteen hours credit.*

Practical problems in drafting and planning as listed in the following courses:

Unit a. Geometric construction, shop sketching, orthographic projection, sectional views, dimensioning and working drawing. *Two hours credit.*

Unit b. Auxiliary projection, pencil tracing, revolution, isometric, inking, oblique, and cabinet drawing. *Three hours credit.*

Unit c. Perspective, dimetric, shading, freehand pictorial sketching, missing view drawing, symbols, and blueprinting. *Three hours credit.*

Unit d. Intersections and pattern development. *Two hours credit.*

Unit e. Beginning architectural drafting. *Three hours credit.*

Unit f. Machine drawing and graphic methods. *Three hours credit.*

Three hour units will appear in the schedule as 161x, two hour units as 161y.

163a,b. GENERAL SHOP ELECTRICITY. *Two to five hours credit.*

Elementary principles of electricity that are applicable to projects in the junior and senior high schools. An opportunity will be given to make such projects. Second course will include a unit on house wiring.

Unit a. *Two hours credit.*

Unit b. *Three hours credit.*

232. IMPROVEMENT OF INSTRUCTION IN THE ARTS. *Three hours credit.*

An analysis of current difficulties and weaknesses in teaching the arts. Curriculum problems, objectives, methods and administrative and community pressures are studied.

233. MATERIALS OF INDUSTRY. *Three hours credit.*

A study of the origin of the materials used in industrial arts classes and processes involved in the manufacture of each material. Methods of presenting the related information and consumer knowledge of each material area are considered.

234. HISTORY OF INDUSTRIAL ARTS. *Four hours credit.*

A study of the origin, movements, and leaders responsible for theories and philosophies of industrial arts. First half of course includes studies up to 1870; second half deals with progress from 1870 to the present. Offered in summer as 234a, 234b, two hours credit each four weeks.

235. PHILOSOPHY OF INDUSTRIAL ARTS. *Three hours credit.*

Prerequisite, I.A. 234 or equivalent. A study of the conflicts in the teaching of industrial arts. Relationship of philosophy to actual practice.

236. PRINCIPLES OF GENERAL SHOP ORGANIZATION. *Three hours credit.*

The purposes and philosophy underlying the organization of general shops.

237. DEVELOPMENT OF INSTRUCTIONAL AIDS IN INDUSTRIAL ARTS. *Three hours credit.*

Visual aids, instruction sheets, charts, graphs, and other instructional devices are planned and developed. The student will select, plan, and construct, where appropriate, various instructional aids.

238. CURRENT THEORY AND PRACTICE IN THE ARTS. *Three hours credit.*

Current controversial issues which confront the teacher of the arts; problems of standardization, laboratory organization, administrative and community attitudes, and correlation with other departments.

239. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL EDUCATION. *Three hours credit.*

A study of the purposes and programs of industrial education in secondary schools, including industrial arts and vocational-industrial education. Special emphasis upon the program of vocational-industrial education as provided through the Smith-Hughes Act, the George-Dean Act, and other pieces of federal legislation.

240. COURSE ORGANIZATION IN INDUSTRIAL ARTS. *Three hours credit.*

Criteria underlying the organization of a course of study in industrial arts. Techniques by which courses are developed or revised. Each student prepares a course of study in the field of his interest. Offered in summer as 240a, 240b, two hours credit each four weeks.

241. THE PLACE OF THE ARTS IN GENERAL EDUCATION. *Three hours credit.*

Incorrect concepts of the different areas of the arts are studied. Philosophies, objectives and current methods of teaching the arts are presented.

242a,b,c. ADVANCED THEORY AND PRACTICE OF TYPOGRAPHIC DESIGN. *Three hours credit each.*

Prerequisites, I.A. 141a,b,c or equivalent. Treats printing as a great art and deals with the origin, development and application of the principles of design in the field of typography.

243. ADVANCED THEORY AND PRACTICE IN OFFSET LITHOGRAPHY. *Three hours credit.*

Prerequisites, I.A. 141a,b,c or equivalent. This course will include copy preparation, camera and darkroom work, stripping and opaquing, plate making and offset press operation.

- 247. ADVANCED CONSTRUCTION PROBLEMS.** *Three hours credit.*
Prerequisites, I.A. 150a,b,c or equivalent. A course for advanced wood-working students with emphasis on application of steel square to construction problems.
- 248a,b. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN BOOKBINDING.** *Three hours credit each.*
Methods of relating the bindery to the library and the classroom. Organization of binding as a general shop unit. Development of courses to meet individual needs. Second course provides opportunity to do creative work in gold and leather on bindings.
- 250. CONTEMPORARY FURNITURE DESIGN AND FABRICATION.** *Three hours credit.*
A brief introduction of recognized periods of furniture design leading to the present concept of functionalism and the techniques of fabricating contemporary design.
- 254. THE ARTS IN RECREATION.** *Three hours credit.*
The organizing of various types of craft work for a recreational program. Problems of finance; opportunity to develop proficiency.
- 255. THE USE OF NEW MATERIALS.** *Three hours credit.*
A study of the newer materials of industry and methods of adapting them for use on both junior and senior high school levels.
- 256. ADVANCED ART METAL.** *Three hours credit.*
Prerequisites, I.A. 55a, 57a or equivalent. This will be an advanced course in art metal and metal spinning including work in extreme raising, repousse, chasing, use of sectional chucks and others.
- 257. ADVANCED GENERAL METALWORK.** *Three hours credit each.*
Prerequisite, I.A. 55a or equivalent. This shall serve as an advanced course in bench metalwork, machine lathe, welding, jewelry and lapidary work. This will include an elementary unit in foundry work in the casting of aluminum. The course is taught in three sections each summer.
Unit a. Emphasis lapidary, jewelry and art metal.
Unit b. Emphasis bench metal, lathe and welding.
Unit c. Ornamental iron and sheet metal.
- 258. ADVANCED LEATHERCRAFT.** *Three hours credit.*
Prerequisite, I.A. 255 or equivalent. Advanced techniques in leathercraft. Methods of organization and teaching problems. Development of course material suitable to a unit or general shop.
- 259. ADVANCED PLASTICS.** *Three hours credit.*
Prerequisite, I.A. 255 or equivalent. Advanced work in the field of plastics. Fabrication of projects for a unit or general shop, together with methods of organizing such work. Development of a course suitable to a general shop.
- 263. PROBLEMS IN TEACHING GENERAL SHOP ELECTRICITY.** *Three hours credit.*
Prerequisites, I.A. 163a,b or equivalent. An opportunity for teachers of industrial arts who have to include a "doing" course in electricity in their general shop program. Selection of content and the development of projects to meet the objectives of the work. Laboratory organization and equipment problems are also considered.
- §264. INDUSTRIAL ARTS DESIGN.** (Credit may be obtained in Industrial Arts or Fine Arts.) *Three hours credit.*
Principles of design as they apply to the several areas of industrial arts.
- 290. INDUSTRIAL ARTS IN AMERICAN EDUCATION.** (Summers only.) *Three hours credit.*
A summer Pre-Session course which considers several important phases in the development of the arts as a part of American education on both the elementary and secondary levels.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and research in the arts. Criteria for the selection of graduate work in industrial arts for subsequent quarters. Study of research techniques. Required of all graduate majors in Industrial Arts. Taught jointly with Home Economics and Fine Arts majors.

301. SEMINAR IN INDUSTRIAL ARTS. *Three hours credit.*

An opportunity for students doing independent research to report and receive criticism.

302. A CRITIQUE OF MODERN INDUSTRIAL ARTS. *Three hours credit.*

A course in which several instructors participate. Men of divergent points of view present and defend ideas of common interest to today's industrial arts teacher.

322. INDIVIDUAL STUDIES IN INDUSTRIAL ARTS. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Opportunity for independent study not provided in regular classes. Open only to qualified students. Typewritten paper required.

330. ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL ARTS. (Summers only.) *Four hours credit.*

An advanced course for teachers and supervisors of industrial arts in both large and small school systems. Problems of the elementary and secondary levels considered.

333a,b,c,d,e. INDIVIDUAL PROBLEMS IN INDUSTRIAL ARTS. *One to four hours credit for one problem; a maximum of twelve hours credit is permitted.*

Open to selected students for special work not offered in regular classes.

335. PHILOSOPHY OF INDUSTRIAL ARTS. (Summers only.) *Four hours credit.*

Prerequisite, I.A. 234 or equivalent. A study of the many factors which influence the development of a sound philosophy. Method and subject matter, terminology, development of aims, and the place of the arts in the history of man.

336. PRINCIPLES OF GENERAL SHOP ORGANIZATION. (Summers only.) *Four hours credit.*

Philosophy of the program, objectives, methods of teaching and organization of general shops. Special problems of instruction and administration are also considered.

343. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN THE GRAPHIC ARTS. *Three hours credit.*

The techniques and objectives of the graphic arts; their historical development and place in our cultural background; art in printing; shop planning, equipment and management; course content and organization.

344. PROBLEMS OF DESIGN IN THE GRAPHIC ARTS. *Three hours credit.*

Course is centered around graphic arts problems found in individual projects, with emphasis upon methods of teaching students to recognize, appreciate and use the principles of design on the printed page.

351. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN WOODWORKING. *Three hours credit.*

Prerequisites, I.A. 150a,b,c or equivalent. Critical study of current practices. A "refresher" course for teachers who have been away from the field. Includes techniques in both bench and machine work.

352. PROBLEMS IN WOODWORKING. *Three hours credit.*

Prerequisite, I.A. 351 or equivalent. A study of the problems the specialized teacher of woodworking in secondary schools must meet.

359. TEACHING TECHNIQUES AND COURSE ORGANIZATION IN METALWORK. *Three hours credit.*

Prerequisites, I.A. 55a, 57a or equivalent. This course shall include objectives, course content, shop organizations, evaluation and methods of teaching the various phases of metalwork.

360. PROBLEMS OF THE METAL SHOP. *Three hours credit.*

Prerequisite, I.A. 359 or equivalent. Advanced course in the organization of both unit and general metal shops and shop practice handled on the seminar basis, giving the graduate students an opportunity to work on problems they have confronted in the field. This is taught in two sections each summer.

Unit a. Emphasis jewelry and lapidary.

Unit b. Emphasis general metal, welding and machine lathe.

362a,b. PROBLEMS IN DRAFTING AND PLANNING. *Three hours credit each.*

Prerequisites, I.A. 61a,b,c. Objectives, course content, and teaching procedures of all units in drafting. Courses are set up in terms of individual needs.

368a,b. ADVANCED ARCHITECTURAL DRAFTING. (Summers only.) *Four hours credit each.*

Prerequisite, I.A. 161e or equivalent. Advanced home and school building planning. Laws, standards, and computation of cost. Open to school administrators as well as industrial arts teachers.

390. CURRICULUM DEVELOPMENT IN INDUSTRIAL ARTS. (Offered every third summer.) *Four hours credit.*

A series of courses dealing with four basic areas in industrial arts. Open only to Ed.D. candidates and selected students on the M.A. level.

Unit a. The graphic arts.

Unit b. Electronics.

Unit c. Power and transportation.

Unit d. Metals.

391. EVALUATION IN INDUSTRIAL ARTS. (Offered every third summer.) *Four hours credit.*

Purposes: To acquaint teachers, supervisors and administrators with the problems of evaluation in industrial arts education. To study evaluation techniques including test construction in industrial arts. To consider briefly statistical procedures related to evaluation in industrial arts. (Students are encouraged to elect the statistics course to develop specific abilities.)

399. THESIS. *Eight hours credit.***401. RESEARCH IN INDUSTRIAL ARTS.** *Three hours credit.*

A course with the seminar-workshop approach that provides an opportunity to read and analyze current research as well as to lay the groundwork for the students own required dissertation.

Division of Education

The Division of Education includes the fields of Business, Business Education, Curriculum, Educational Administration, Educational Psychology and Guidance, Elementary Education, Elementary School Administration and Supervision, Higher Education, Junior High School Education, Junior High School Administration and Supervision, Library Science, Preschool Education, Secondary Education, Special Education and Outdoor Education. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (with teaching certificate)

Majors: Business Education (Concentration in Office Occupations or Distributive Education), Elementary Education, Special Education, Speech Correction.

Minors: Business Education, Elementary Education, Library Science, Preschool Education, Special Education, Speech Correction.

Emphasis: Outdoor Education.

BACHELOR OF ARTS DEGREE (liberal arts)

Major: Business.

Minor: Business.

MASTER OF ARTS DEGREE (with teaching certificate)

Majors: Business Education, Educational Administration, Educational Psychology and Guidance, Elementary Education, Elementary School Administration and Supervision, Junior High School Education, Junior High School Administration and Supervision, Secondary Education, Special Education.

Emphasis: Outdoor Education

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected

DOCTOR OF EDUCATION DEGREE (with teaching certificate)

Areas of Concentration: Business Education, Educational Administration, Educational Psychology and Guidance, Elementary Education, Secondary Education, Special Education

Supporting Area: Business Education, Educational Administration, Educational Psychology and Guidance, Elementary Education, Secondary Education, Special Education, Curriculum, Higher Education, History and Philosophy of Education.

See graduate section of this catalog for a listing of areas of concentration and supporting areas other than those offered by the Division of Education, applicable to the Doctor of Education degree.

ELEMENTARY EDUCATION MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Ed. 210	Improvement of Instruction in Reading in the Elementary School	3
Ed. 211	Improvement of Instruction in Language in the Elementary School	3
Ed. 211e	Teaching Handwriting and Spelling in the Elementary School	2
Ed. 212	Improvement of Instruction in Arithmetic in the Elementary School	3
Ed. 213	Improvement of Instruction in Social Studies in the Elementary School	3
Eng. 221	Literature in the Elementary School	3
F.A. 124	Art in the Elementary School	5
Geog. 48	United States	4
H.P.E. 88	Physical Education for the Elementary School	1
H.P.E. 38a,b,c	Physical Education Activities for the Elementary School	3
H.P.E. 201	Health Education in the Elementary School	4
Hist. 75	Unit Survey of United States History	4
Mus. 149	Music Methods and Materials for Elementary Teachers (Prerequisite—Music 48a)	3
Sci.Ed. 191	Teaching Science in the Elementary School	4
Sp.Electives	Selection may be made from Sp. 16, 112, 117, 164, 251, or Sp.Ed. 268	-3-4
	For a total of	48

3. Completion of two of the following special methods courses before attempting student teaching: Ed. 210, 211, 212 or 213. Preferably Ed. 210 and 212.

4. 52 to 59 quarter hours of electives to complete 180 quarter hours of academic credit required for graduation. Electives will be selected in consultation with the student's adviser from these fields: art, English, geography, history, home economics, mathematics, music, science, and sociology.

Elementary Education majors will find it valuable to be able to play simple piano accompaniments. Students may enroll for group piano instruction.

Elementary Education Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Ed. 210	Improvement of Instruction in Reading in the Elementary School	3
Ed. 211	Improvement of Instruction in Language in the Elementary School	3
Ed. 211e	Teaching Handwriting and Spelling in the Elementary School	2
Ed. 212	Improvement of Instruction in Arithmetic in the Elementary School	3

Ed.	213	- -	Improvement of Instruction in Social Studies in the Elementary School - - - -	3
Sci. Ed.	191	- -	Teaching Science in the Elementary School - -	4
Electives		- -	<i>Selection may be made from F.A. 124; H.P.E. 88; 88a,b,c; Eng. 221; Mus. 48a,b, 149 - - - - -</i>	9
				27

Preschool Minor

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>	
Ed.	261	- -	Participation in Preschool - - - - - 3	
H.E.	98	- -	Elementary Nutrition - - - - - 3	
H.E.	219	- -	Infant and Child Care - - - - - 4	
E.P.G.	203	- -	Development and Guidance of the Young Child - - - - - 3	
H.E.	264	- -	Workshop in Preschool - - - - - 3	
Sp.	16	- -	Voice and Diction - - - - - 4	
Electives		- -	<i>Recommended courses include Ed. 240; Ed. 262; H.E. 180; Sp. 164; Sp. 265a - - -</i>	7
				27

Outdoor Education

An emphasis on outdoor education affords students the opportunity to become better acquainted with the potential the out-of-doors has as a laboratory for teaching. Course offerings which have significance for this broad area are offered in every division of the college. All students regardless of their major should be encouraged to elect courses which are pertinent to this emphasis in education. Listed below are three specific courses which are the introductory courses in this area. Additional courses may be selected through a conference with the person in charge of outdoor education.

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
Ed.	80	- -	An Introduction to Outdoor Education (for sophomores, juniors and seniors) - - 3
H.P.E.	273	- -	Workshop in Outdoor Education - - - - - 3
Ed.	380	- -	Outdoor Education—Philosophy, Principles and Interpretations (for graduate students only) - - - - - 3

Description of Courses

- 26. **CAMP FIRE GIRLS' LEADERSHIP.** *Two hours credit.*
Training for leadership in educational, character-building extracurricular activities for girls. The course leads to the National Training Course Certificate of the Camp Fire Girls.
- 27. **BOY SCOUT LEADERSHIP.** *Two hours credit.*
Designed to give students a general knowledge of the aims and content of the Boy Scout program, with emphasis on the methods that can be used to teach the program to boys.
- 28. **GIRL SCOUT LEADERSHIP.** *Two hours credit.*
Knowledge of the aims and content of the Girl Scout program. Designed to assist young women in the general leadership of children.
- h50. HONORS SEMINAR.** *No credit.*
A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

52. TEACHING OF READING AND ARITHMETIC IN THE ELEMENTARY SCHOOL. (Summers only.) *Three hours credit.*

Deals with approved methods and materials useful for teaching reading and arithmetic in rural or small elementary schools.

55. TEACHING OF HISTORY AND GEOGRAPHY. (Summers only.)
Four hours credit.

A methods course in teaching history and geography in the elementary school as separate subject matter courses or as a unified social studies course.

80. AN INTRODUCTION TO OUTDOOR EDUCATION. *Three hours credit.*

Not open to freshmen. An introductory course to orient students with the concepts of outdoor education. Emphasis will be on the use of the out-of-doors as a laboratory for teaching. Short field trips and one overnight excursion will be conducted. When feasible, instructors from other divisions will participate.

85. COMMUNITY LIFE AND PROBLEMS. *Three hours credit.*

Prerequisites, E.P.G. 20 and sophomore standing. Required for teaching credential. Designed to give prospective teachers an experience in study of typical kinds of community life. Each student will elect to participate during the quarter in some community activity or to make a simple type of community survey. (Ed. 247 should be submitted for transfer and graduate students.)

105. AMERICAN EDUCATION. *Three hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85 or equivalents. Students must be third quarter sophomores or upperclassmen. Objectives of education, techniques of educational thinking. Characteristics and trends in the American school system, the general program of education, levels of education, federal-state-local relations, problems of teacher education and welfare.

120. INDIVIDUAL EDUCATIONAL RESEARCH. *Two to eight hours credit.*

Qualified undergraduate students outline and spend a minimum of twenty-five clock hours per quarter hour on a problem. Two copies of a well-written paper must be filed before credit is given, one with the instructor and one with the chairman of the division.

150a. INTRODUCTION TO STUDENT TEACHING IN THE ELEMENTARY SCHOOL. *Five hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105. Student engages in directed participation in a teaching situation two hours per day, five days per week, under the supervision of a master elementary teacher in the laboratory school and arranges for one additional conference hour. To be taken concurrently with Ed. 214.

150b. INTRODUCTION TO STUDENT TEACHING IN THE SECONDARY SCHOOL. *Two hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105, 216. Student is assigned to a specific class in his major or minor area under supervision in the laboratory school. He will meet with the class and the supervising teacher five days per week and arrange for one additional conference hour. To be taken concurrently with Ed. 150c.

150c. METHODS OF TEACHING IN THE SECONDARY SCHOOL. (Industrial Arts, English, Foreign Languages, Speech, Drama, Science, Mathematics, Business Education, Social Studies, Distributive Education.) *Three hours credit.*

Prerequisite, Ed. 216. Methods of teaching in the junior-senior high school. Curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of the special area to the total secondary program. Teaching techniques are a point of emphasis. To be taken concurrently with Ed. 150b, preceding student teaching.

150d. OBSERVATION AND PARTICIPATION IN ELEMENTARY SCHOOL MUSIC. *Three hours credit.*

Prerequisites, Ed. 105 and Music 50c. A concentrated experience in school music on the elementary level. The student actively participates in the classes in which he observes, and studies classroom teaching procedures, methods and values with an eye to his own future student teaching.

150e. OBSERVATION AND PARTICIPATION IN SECONDARY SCHOOL MUSIC. *Two hours credit.*

Prerequisites, Ed. 105 and Music 50c. Advanced methods and instructional problems in junior and senior high school music teaching, observation and participation in designated music classes in College high school; class discussion of student problems occurring in observation and participation.

150g. METHODS AND OBSERVATION OF TEACHING PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, junior standing and all required divisional courses numbered under 100. A study of mental, emotional, physical and social needs of children of elementary school age levels, and the planning of a program, selection of materials and methods of teaching physical education at these levels.

150h. METHODS AND OBSERVATION OF TEACHING PHYSICAL EDUCATION IN THE SECONDARY SCHOOL. *Two hours credit.*

Prerequisite, junior standing and all required divisional courses numbered under 100. A study of planning, materials, and methods in physical education for the secondary school based on mental, physical, and social needs of the student at various age levels.

150i. INTRODUCTION TO STUDENT TEACHING IN HOME ECONOMICS. *Two hours credit.*

This course must be taken with or following Ed. 150j. Students observe classes and participate directly in teaching individuals and groups of pupils in the Laboratory School. Experiences in planning with pupils; supervising their activities and evaluating progress are included. Students become familiar with teaching aids and procedures.

150j. METHODS AND OBSERVATION OF TEACHING HOME ECONOMICS IN THE SECONDARY SCHOOL. *Three hours credit.*

The course is planned for Home Economics majors and minors. It is a study of the philosophy of homemaking education, organization of the curriculum, methods and techniques of teaching homemaking, selection and use of teaching aids and evaluation procedure.

150k. METHODS AND OBSERVATION OF TEACHING ART IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, F.A. 125. A study of teaching techniques, curriculum organization, factors of individual growth and levels of development, evaluation of child art, and an acquaintance with essential art materials and teaching aids.

150L. METHODS AND OBSERVATION OF TEACHING ART IN THE SECONDARY SCHOOL. *Two hours credit.*

Prerequisites, Ed. 105, F.A. 123. A study of curriculum and class organization, individual growth and development, evaluation of student work, teaching techniques and art media.

150m. OBSERVATION AND PARTICIPATION IN ELEMENTARY SCHOOL SCIENCE. *Two to four hours credit.*

Prerequisites, Ed. 105 and 150a. A concentrated experience in elementary science. The student actively participates in the classes in which he observes, and studies classroom teaching procedures and methods. One hour of conference required.

151. STUDENT TEACHING. *Four to sixteen hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105, 214 or 216, and methods and observation. Includes planning teaching, teaching under the direction of supervising teacher, evaluating teaching in conference with supervi-

ing teacher, improving teaching through repeated practice and re-evaluation and participation in school and school-community activities.

152. INTERNSHIP IN ADVANCED STUDENT TEACHING. *One to eight hours credit.*

Prerequisite, Ed. 151. An invitational program for individuals showing professional promise following completion of regular student teaching assignment. Experience under the direct supervision of a Laboratory School supervisor.

§208a. AUDIO-VISUAL MATERIALS IN EDUCATION. (Credit may be obtained in Education or Library Science.) *Four hours credit.*

Introduces students to most audio-visual materials and devices available for improving instruction; each type is demonstrated, and psychological basis for use is discussed as well as its characteristics, advantages and disadvantages; designed to be of value to all interested in education.

208b. AUDIO-VISUAL ADMINISTRATION WORKSHOP. *Three hours credit.*

Prerequisite, 208a. A workshop for administrators and teachers on the administration and use of audio-visual devices. Classroom layout, budgeting, purchasing, evaluation and distribution of materials are treated as well as personnel and training problems. Research methods and application of materials are also covered.

208d. LOCAL PRODUCTION OF AUDIO-VISUAL INSTRUCTIONAL MATERIALS. *Three hours credit.*

Prerequisite, Ed. 208a, upperclassman or graduate standing. Provides experience in the production of audio-visual teaching materials using equipment and facilities available to most teachers. Includes preparation and mounting of pictures and the production of graphic materials, slides, and recordings.

210. IMPROVEMENT OF INSTRUCTION IN READING IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, Ed. 150a or public school teaching experience. A detailed consideration of the content to be taught and the methods and materials to be used in the teaching of reading from the kindergarten through the sixth grade.

210a. READING IN THE PRIMARY GRADES. *Four hours credit.*

The nature of reading, the pertinent research in the field, the curriculum in reading from the preparatory period through the primary grades, the selection of effective materials of teaching, methods and techniques of teaching, and the use of various types of tests will be studied.

210d. REMEDIAL READING IN THE ELEMENTARY SCHOOL (THEORY). *Three hours credit.*

Prerequisites, Ed. 210 or equivalent and student teaching or equivalent. This course is designed to give the classroom teacher, administrator, or reading specialist insight concerning the problems of the educationally retarded reader in the elementary school. Causes of failures are investigated. Diagnostic and teaching techniques are presented.

210e. LABORATORY COURSE IN REMEDIAL READING. *Five hours credit, maximum—ten hours.*

Prerequisites, 210, student teaching, 210d, or equivalent. This course involves tutoring an individual or a small group of educationally retarded readers for one hour, five days a week. At two class meetings each week students learn to administer a diagnostic reading test and develop teaching materials. Observations are followed by individual and group conferences with the students.

210f. READING READINESS. *Two hours credit.*

Prerequisite, Ed. 52, 210, or 210a. Presents theories, research, and practices regarding readiness for reading in the first grade and on through the elementary school, as well as readiness for reading in the subject matter fields.

210j,k,l. THE TEACHING OF READING AND LANGUAGE IN THE ELEMENTARY SCHOOL. (Summers only.) *Three hours credit.*

This course is concerned with problems in the teaching of reading and language in the elementary school. The problems presented from time to time will vary according to the lecturers who appear on the program.

211. IMPROVEMENT OF INSTRUCTION IN LANGUAGE IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, Ed. 150a or public school teaching experience. This course is the basic course in the teaching of language in the elementary school. It considers the scope and nature of an adequate program of instruction in language, and is concerned primarily with the identification of content to be taught and methods and materials to be used.

211a. LANGUAGE IN THE PRESCHOOL AND PRIMARY GRADES. *Three hours credit.*

A course in oral language from preschool through grade three, and written language from second grade through grade three. Research in the field will be reviewed. Curriculum content, materials, and techniques will be studied.

211e. TEACHING HANDWRITING AND SPELLING IN THE ELEMENTARY SCHOOL. *Two hours credit.*

Prerequisites, Ed. 150a, 214. A comprehensive consideration of content, methods, instructional materials and evaluation in the fields of handwriting and spelling. Research data in each area are reviewed and applied.

212. IMPROVEMENT OF INSTRUCTION IN ARITHMETIC IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, Ed. 150a or public school experience. A comprehensive analysis of the meaning theory, developmental method of teaching, what to teach, grade placement of content, methods of instruction with major emphasis on how to bring about insightful learning, tools of instruction including concrete and semi-concrete materials, and means of evaluating achievement.

213. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, Ed. 150a or public school teaching experience. A detailed basic consideration of objectives; construction and use of units, problem solving, selection and grade placement of content, methodology including the use of concrete experiences, audio-visual materials, group processes, questioning, reading, and techniques of evaluation.

214. THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85, 105, and third-quarter sophomore or upperclassman standing. To be taken concurrently with Ed. 150a. An introductory course to elementary education including development and purposes, forms of organization, schedules, records and reports, evaluating and reporting pupil progress, classroom management, and problems confronting elementary school teachers.

216. THE SECONDARY SCHOOL. *Three hours credit.*

Prerequisites, E.P.G. 20, 30, 40 and Ed. 85 and 105. An introductory course orienting the beginning teacher to general problems of secondary education including objectives, needs of youth, curriculum, student activities, guidance, teaching methods and evaluation.

216a. JUNIOR HIGH SCHOOL WORKSHOP. (Summers only.) *Three hours credit.*

A practical problems course designed to deal with the organization, administration, and curriculum practices of the junior high school; based on the needs as determined by the participants in the workshop. Discussion topics will include guidance, homeroom practices, activities, time-allotment, subject matter areas, and functions of the junior high school.

216b. THE JUNIOR HIGH SCHOOL. *Three hours credit.*

The junior high school will be analyzed in terms of historic development and purpose. Current problems of administration, instruction, and student activities will be treated. A synthesis of desired junior high school practice will be developed.

216c. CURRICULUM IN THE JUNIOR HIGH SCHOOL. (Summers only.)
Four hours credit.

Traditional and recent curriculum organization in the junior high school will be surveyed and evaluated with reference to the needs of the young adolescent and the special requirements of the school. Opportunity for intensive concentration in a specific area of curriculum will be provided.

217. EXTRACURRICULAR ACTIVITIES IN SECONDARY SCHOOLS.
Three hours credit.

Prerequisite, Ed. 105. Topics covered include: philosophy of student activities, home rooms, clubs, school councils, athletics and intramural sports, school publications, music and dramatic activities, school trips, social functions, and evaluation of behavior patterns.

227a. IMPROVING THE MARKING SYSTEM. *Three hours credit.*

An educational experience designed to familiarize teachers and administrators with various evaluating and reporting techniques and instruments being used in different secondary schools. Special emphasis will be given to the development of a marking and reporting system to be used in the individual's own school situation.

236a. TECHNIQUES OF TEACHING IN SMALL SCHOOLS (ELEMENTARY). (Summers only.) *Three hours credit.*

This course offers opportunities to become familiar with and to evaluate new teaching techniques adapted to the instructional programs of small elementary schools.

236b. TECHNIQUES OF TEACHING IN SMALL SCHOOLS (SECONDARY). (Summers only.) *Four hours credit.*

This course offers opportunities to become familiar with and to evaluate new teaching techniques adapted to the instructional programs of small secondary schools.

237. COMPARATIVE EDUCATION. (Summers only.) *Four hours credit.*

The philosophy and practices of education in foreign countries, usually including education in Germany, France, Russia, Norway, Great Britain, China, Australia, Canada, Mexico and certain South American countries.

240. PARENT EDUCATION. *Three hours credit.*

This course deals with problems of starting and continuing programs of parent education in public schools. The selection of sponsoring organizations, organizing parent education groups, meeting the educational interests and needs in child study, home education, and home-school cooperation are emphasized.

241. ADMINISTRATION FOR TEACHERS. *Three hours credit.*

A course designed for students preparing to be classroom teachers rather than administrators. An overview of such topics as public school organization, finance, personnel, supervision, scheduling, and activities will be made. The teacher's role in democratic administration will be studied.

242a,b,c,d. SCHOOL ADMINISTRATION WORKSHOP. (Summers only.)
Three hours credit each.

Prerequisite, teaching experience. Problems in the field of school administration proposed by members of the workshop will be studied intensively on a group basis. Salary schedules, improvement of teachers in service, tenure, operation and maintenance of the school plant, budgetary control are sample problems which lend themselves to intensive study.

243. SCHOOL LAW FOR TEACHERS. *Three hours credit.*

An examination of the legal responsibilities, rights, and liabilities of classroom teachers and the legal relationships of teachers to students, administrators, school boards, and the public.

244. SCHOOL AND COMMUNITY RELATIONS. (Summers only.) *Three hours credit.*

This course considers the problems of human and professional relationships for teachers. It examines the factors which create and influence public and personal opinion. It shows how skills and techniques may be developed and utilized in a sound school and community relations program.

245. FOUNDATIONS FOR CURRICULUM DEVELOPMENT. *Three hours credit.*

An appraisal of theories and practices of curriculum making; presentation of a modern, functional philosophy of curriculum making; and survey of the applications of this functional theory to the major areas of living. This course also includes the principles of subject matter and content selection and placement influenced by psychology of learning, social changes, educational philosophy, and growth and development. (First course of sequence in curriculum: Ed. 245, 246, 349.)

245b. SPECIAL PROBLEMS IN CURRICULUM IN THE ELEMENTARY AND SECONDARY SCHOOL. (Summers only.) *Three hours credit.*

The purpose of this course is to give joint consideration to the applications of curriculum on both the elementary and secondary levels. The course will be taught jointly by two teachers, one a specialist in elementary education and the other a specialist in secondary education.

§245c. ELEMENTARY AND SECONDARY SCHOOL SOCIAL STUDIES CURRICULUM WORKSHOP AND CONFERENCE. (Credit may be obtained in Education or Social Studies.) (Summers only.) *Three hours credit.*

A workshop designed for elementary and secondary school teachers of the social studies who desire a knowledge of social studies curriculum research, theory and practice. Specialists drawn from both elementary education and secondary education will conduct the sessions.

246. ADVANCED CURRICULUM CONSTRUCTION. *Three hours credit.*

This course discusses what to teach in the major areas of living including communication, health, economic life, home and family life, citizenship, leisure, religious-moral experience and personality development. Emphasis is placed on the application of the above to a typical educational program. Second course of sequence in curriculum.

247. EDUCATIONAL SOCIOLOGY AND COMMUNITY ORGANIZATION. *Three hours credit.*

Surveys and appraises the implication of outside-the-school cultural agencies, and attempts to help administrators and teachers utilize the resources of the community in a broad educational program in and out of the school.

248. WORKSHOP IN COMMUNITY PROBLEMS. *Three hours credit.*

Provision is made for students to work on individual problems relating to the community. A carefully organized project is required.

§261. PARTICIPATION IN PRESCHOOL. (Credit may be obtained in Education or Home Economics.) *Three hours credit.*

Prerequisite, Ed. 260 or permission of instructor. Experience with children in the preschool situation supplemented by readings and discussions. Emphasis on child growth, through children's interests and activities.

262. KINDERGARTEN EDUCATION. *Five hours credit.*

A course covering the research, theory, and best practices for the education in kindergartens of four- and five-year-old children. Organization, housing, and equipping of new kindergartens, the readiness program for first grade, and parent education will have pertinent handlings within the course.

262a,b. CONFERENCE AND WORKSHOP IN KINDERGARTEN—PRIMARY EDUCATION. (Summers only.) *Three hours credit.*

This course presents the fundamental thinking in each of the major curriculum areas as to practice and research. Leading authorities in each field give the key lectures. Discussion groups, studies of specific fields of interest and experience techniques in workshops are used to make it a practical refresher course.

263. ADMINISTRATION AND SUPERVISION OF THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, basic education courses, experience or graduate status. A course designed to familiarize the student with elementary school organization, supervision of instruction, administrative relationships, routine duties of the elementary school principal, evaluation, testing programs, reports, records, admission, promotion, retention, and guidance. Emphasis is placed on improving the teaching-learning situation.

270. TECHNIQUES OF ADULT EDUCATION. *Two hours credit.*

This course will emphasize the development of adult education movements in this country, the psychology and philosophy of adult education, and methods and techniques in practical application.

§273. WORKSHOP IN OUTDOOR EDUCATION. (Credit may be obtained in Health and Physical Education or Education.) (Summers only.) *Three hours credit.*

For description of this course, see page 142.

§274. METHODS AND MATERIALS IN DRIVER EDUCATION. (Credit may be obtained in Health and Physical Education or Education.) *Four hours credit.*

For description of this course, see page 142.

295. PHILOSOPHY OF EDUCATION. *Three hours credit.*

Prerequisites, Ed. 105 and 214 or 216; students must be seniors or graduate students. A study of the different patterns of thought concerning educational aims, values, democracy and education, method and subject matter, giving the student the tools with which to develop a philosophy of education.

296. HISTORY OF EDUCATION IN THE UNITED STATES. *Three hours credit.*

This course is based on material in the most recent texts on the history of education in the United States.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

An orientation to graduate study in general and to the nature and methods of research in particular. Required of all first-year graduate students. Should be taken during the first quarter of graduate work.

301. PRACTICUM. *Three or four hours credit.*

Open only by invitation to resident graduate students. Supervised professional activity in the student's major field, approximately two hours per day. A written report is required.

302. SEMINAR IN EVALUATING AND IMPROVING JUNIOR HIGH SCHOOL INSTRUCTIONAL PROGRAMS. *Three hours credit.*

Prerequisite, graduate status. A course designed to acquaint administrative personnel with an overview of the problems involved in organizing, administering, and supervising junior high school music, the arts, social studies, science, mathematics, English language, health and physical education, foreign language, and business education programs.

310. SUPERVISION OF INSTRUCTION IN READING. *Three hours credit.*

Prerequisite, graduate status. A detailed consideration of the content to be taught and the methods and materials to be used in the teaching of reading from the kindergarten through the sixth grade. The material in this course is presented on an advanced graduate level.

310a. SPECIAL PROBLEMS IN THE SUPERVISION OF READING.
Three hours credit.

Prerequisites, Ed. 210 or 210a. This seminar course considers a few of the problems in the teaching and supervision of reading and varies somewhat in content from year to year according to the interests of students.

311. SUPERVISION OF INSTRUCTION IN LANGUAGE. *Three hours credit.*

Prerequisite, graduate status. A detailed consideration of the content to be taught and methods and materials to be used in the teaching of language in the elementary school. The material is presented on an advanced graduate level.

311a. SPECIAL PROBLEMS IN THE SUPERVISION OF LANGUAGE.
Three hours credit.

Prerequisites, Ed. 211 or 211a. This seminar course considers a few of the problems in the teaching and supervision of language and varies somewhat in content from year to year according to the interests of students.

312. SUPERVISION OF INSTRUCTION IN ARITHMETIC. *Three hours credit.*

Prerequisite, graduate status. Selecting what to teach, the grade placement of content, methods and materials of teaching, and means of evaluating achievement. The material in this course is presented on an advanced graduate level.

312a. SPECIAL PROBLEMS IN THE SUPERVISION OF ARITHMETIC.
Three hours credit.

Prerequisite, graduate status. This seminar covers important problems in the teaching and supervision of arithmetic in the elementary school. Course content may vary from year to year according to the needs of the students enrolled.

313. SUPERVISION OF INSTRUCTION IN SOCIAL STUDIES. *Three hours credit.*

Prerequisite, graduate status. A comprehensive consideration on an advanced graduate level of the objectives; content; methods including unit procedures; materials including objects, models, exhibits, and museum items, as well as textbooks, collateral reading, maps, and globes; and means of evaluating social growth and development.

313a. SPECIAL PROBLEMS IN THE SUPERVISION OF SOCIAL STUDIES. *Three hours credit.*

Prerequisite, graduate status. This seminar covers important problems in the teaching and supervision of social studies in the elementary school. Problems pertaining to content, unit procedures, problems solving, activities, pupil-teacher planning, and evaluation are considered. Course content may vary from year to year according to the needs of the students enrolled.

314a. CONSTRUCTION OF CURRICULUM GUIDES IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, graduate status. This seminar course includes a consideration of problems of constructing curriculum guides in the elementary school. Problems pertaining to trends, philosophy, objectives, unit procedures, curriculum committees, and evaluation are considered. Curriculum guides and courses of study are examined and criteria set up for their evaluation.

314b. THE ELEMENTARY SCHOOL CURRICULUM. *Three hours credit.*

Prerequisite, graduate status. Surveys and appraises the various types of curriculum organization applicable to the elementary school. Also considers basic curriculum problems in selected subject matter areas.

316. SECONDARY EDUCATION. *Three hours credit.*

An advanced course in secondary education concerned with specific problems in the areas of the evolution of secondary education; the committees and commissions; recent trends, advanced practices, and movements;

administration and supervision of student activities; curriculum; guidance; marking; measurement; reporting; and evaluation.

322. INDIVIDUAL STUDIES IN EDUCATION. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline a definite problem and spend a minimum of twenty-five clock hours for each quarter hour of college credit. Two type-written copies of a well-written paper must be filed before credit is given, one with the instructor who directs the study and one with the Dean of the Graduate Division.

342. SCHOOL ADMINISTRATION—FEDERAL, STATE, LOCAL. *Three hours credit.*

Prerequisites, experience or background in education. Introduces the student to administrative problems, and provides an overview of our educational system at federal, state, and local levels. The purpose of the course is to relate the key issues at each level to the role of the superintendent.

343. SCHOOL FINANCE. *Three hours credit.*

Prerequisites, Ed. 342 or permission of instructor. This course deals with the financial implications of the educational program. Budgeting, management of funds, fiscal policies, and the business management function in the school are included in this course.

344. SCHOOL PLANT PLANNING. *Three hours credit.*

Prerequisites, Ed. 342 or permission of instructor. Covers preliminary studies, or surveys, on population, population projections, and location of school sites. A thorough study of the approaches and procedures in relating the instructional program to proposed buildings—developing educational specifications—is a major task of this course. Financial aspects of planning will also be discussed.

345. PRACTICE IN SCHOOL ADMINISTRATION. *Three to six hours credit.*

Prerequisites, a major in school administration and teaching experience. Selected graduate students may study in a public school system under the joint supervision of the college and the superintendent of the school. Written reports of experiences are required.

346. SCHOOL BUILDING PROBLEMS. *Four hours credit.*

Prerequisite, Ed. 344. Technical problems in building school plants, types of material and mechanical equipment, construction practices and supervision of construction are covered. Includes interpretation of blueprints and specifications.

347. CHILD ACCOUNTING, SPECIALIZED AGENCIES. (Summers only.) *Four hours credit.*

Prerequisite, graduate standing. This course will deal with principles and problems of child accounting and with agencies, other than educational, which affect the administration of public schools.

349. PROBLEMS IN CURRICULUM DEVELOPMENT. *Three hours credit.*

This course is designed to present changes in curriculum building, to demonstrate organization for curriculum development in in-service programs, to show the impact of administration, supervision and guidance on curriculum construction, to participate in the actual construction of curriculum outline, and to present current criticisms of present-day curricula. Third course of sequence in curriculum.

350. PRINCIPLES AND PRACTICES IN TEACHER EDUCATION. *Two hours credit.*

The course is divided into five parts: (1) The administrative organization of a college; (2) Current philosophy in teacher education; (3) Curriculum for teacher education; (4) Methods; and (5) Evaluation of student work. Guest speakers are selected from the administration officers of the college.

351. SUPERVISION OF BEGINNING (STUDENT) TEACHERS. *Three or four hours credit.*

Prerequisite, A.B. and/or teaching experience. Problems considered are: (1) introduction to and basic philosophy of student teaching; (2) varying state college and university practices and policies; (3) the role of the cooperating teacher, principal, and college supervisor in student teaching; and (4) selection, induction, ratings, evaluation and compensations.

352. STUDENT SUPERVISION. *Three to eight hours credit.*

A laboratory course to give practical experience, under close supervision, in directing the work of the student teachers. Open to those students who are preparing for supervisory positions and show promise from student teaching or public school experience of undertaking such positions.

365a. JUNIOR-SENIOR HIGH SCHOOL ORGANIZATION AND ADMINISTRATION. *Three hours credit.*

Prerequisite, Ed. 216 or its equivalent. This course covers the nature of secondary school administration; the duties and responsibilities of the principal; and deals specifically with a resource list of problems and practices of secondary school administrators.

365b. SUPERVISION IN THE JUNIOR-SENIOR HIGH SCHOOL. *Three hours credit.*

Emphasis is on supervision, coordination, and promotion of all aspects of school regimen which make direct contributions to the improvement of instruction through curriculum, cooperative planning, guidance and extra curricular program. The induction of new teachers, promotion of in-service training of staff members, and democratic procedures and policy formation are emphasized.

367. RECONSTRUCTING SECONDARY EDUCATION. *Three hours credit.*

Prerequisite, Ed. 216 or equivalent. An educational experience designed to study current problems confronting teachers relative to curriculum and instruction. Emphasis will be given to actual problems taken from in-service situations. These problems will be the bases for cooperative committee study and development of recommendations for improved practices.

369. EXPERIMENTATION IN THE SECONDARY SCHOOL. (Summers only.) *Four hours credit.*

Prerequisites, Ed. 216, 367, or equivalent. Secondary school organization, curriculum, and instructional practices as developed by the secondary school of Colorado State College provide the approach in this course to the study of various plans for the improvement of secondary education.

380. OUTDOOR EDUCATION—PHILOSOPHY, PRINCIPLES AND INTERPRETATIONS. *Three hours credit.*

Designed to acquaint teachers in any area with the scope, breadth and depth of the out-of-doors as a laboratory for the extension of education experiences. When feasible, instructors and specialists from various fields will be used. Short trips will be conducted.

391. HIGHER EDUCATION IN THE UNITED STATES. *Three hours credit.*

An overview of the history, philosophies, curriculums, organization and administration of American colleges and universities with emphasis on their present status and problems.

392. TECHNIQUES OF SUPERVISION IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisites, graduate status and one elementary education improvement or supervision course in reading, arithmetic, language, or social studies. Attention is given to the need for supervision; instigating a supervisory program; supervisory techniques; and the understandings, skills, techniques, and attitudes necessary in supervising teachers.

393. THE JUNIOR AND COMMUNITY COLLEGE. *Three hours credit.*

Prerequisite, Ed. 105. The history, functions, present status, and problems of the junior college and the community college.

395. PHILOSOPHY OF EDUCATION. *Three hours credit.*

Educational aims, values and criteria, democracy and education, different systems of educational philosophy, the nature of thinking, method and subject matter are considered.

396. HISTORICAL FOUNDATIONS OF EDUCATION. (Summers only.)
Four hours credit.

Prerequisites, Ed. 105 and 214 or 216. This course is designed to study important historical and philosophical backgrounds for the interpretation of present day educational issues.

397. CONCEPTIONS OF MIND IN EDUCATIONAL THEORY. *Three hours credit.*

This course traces the historical development of three major conceptions of mind and shows the relation of each to the aims of education.

398. CURRENT EDUCATIONAL TRENDS AND ISSUES. *Three hours credit.*

This course appraises the current studies in such areas as objectives, experimentation, evaluation, administration, levels of education, non-governmental controls, program of education, teacher education and welfare.

399. THESIS. *Eight hours credit.***400. INTRODUCTION TO DOCTORAL RESEARCH.** *Four hours credit.*

Prerequisite, master's degree. An introduction to research and advanced graduate study. Required if the student has not previously taken Ed. 300 or the equivalent.

401. PRACTICUM. *Eight hours credit.*

Prerequisite, master's degree. Project or supervised professional activity, required of all candidates for the Specialist in Education degree. A written report of the project or activity must be submitted.

420. SEMINAR IN RESEARCH. *No credit.*

Prerequisite, doctoral candidates only. Designed for doctoral candidates who are in the process of planning their research. Individuals will present their tentative research proposals and receive criticism from the class and the staff. By permission of the instructor only.

423. DOCTORAL RESEARCH STUDY. *Maximum eighteen hours credit.***442. SCHOOL LAW.** *Three hours credit.*

Prerequisites, twelve hours in education, teaching experience and graduate classification. This course stresses the principles of common law which underlie the relationship of the courts to the schools and focuses on legal problems in education. In addition, the course affords students the opportunity to study intensively the school laws of their respective states.

443a,b,c. SEMINAR IN ADMINISTRATION. *Three hours credit each.*

Prerequisite, doctoral level students in administration. This is a three-quarter sequence of work for doctoral students in general school administration. It will deal systematically with the following areas: (1) small group communications; (2) large group communications; (3) leadership in the instructional program. The general approach will be one of bringing disciplines, other than education, to bear on educational problems.

444a,b,c. ADVANCED SEMINAR IN ADMINISTRATION. *Three hours credit each.*

Prerequisites, doctoral level students in administration. This sequence of seminar work will deal with the means and approaches to evaluating the entire school program and with a case study approach to a variety of administrative problems and situations. Knowledge, skill, and technical ability which the students have developed in other course work or through experience will be used to study the administrative role in our public school systems.

461. PHILOSOPHICAL FOUNDATIONS OF EDUCATION. (Summers only.) *Four hours credit.*

Prerequisite, admission to doctoral study. A study of the educational aims and values of various cultures which have given direction to peoples in different societies. An integration of classical philosophies with educational philosophies culminating in a statement of practical educational aims and objectives.

462. PSYCHOLOGICAL FOUNDATIONS OF EDUCATION. (Summers only.) *Four hours credit.*

Prerequisite, admission to doctoral study. The psychological foundations of education are concerned with basic concepts pertinent to understanding human behavior. Cognition, perception, maturation, motivation, learning, emotions, personal and social adjustment areas are emphasized.

463. SOCIOLOGICAL FOUNDATIONS OF EDUCATION. (Summers only.) *Four hours credit.*

Prerequisite, admission to doctoral study. A study of education in relation to the sociological realities of American and world societies, contemporary and primitive.

492. THE COLLEGE TEACHER. *Three hours credit.*

Presents college teaching as a profession including selection and preparation of instructors and the status, services and rewards of the profession. Also concerned with the application of psychology to college teaching, problems in improving college instruction, and the research function of the college instructor.

493. THE COLLEGE AND UNIVERSITY CURRICULUM. *Three hours credit.*

Outlines the major curricular offerings of American colleges and universities including general education, liberal arts education, vocational and professional education including teacher preparation and the academic administration involved in building and improving a curriculum.

494. COLLEGE ADMINISTRATION. *Three hours credit.*

Describes the organization and administration of American higher education. Includes administrative problems concerned with faculty policy, finance, student personnel, publications, and instruction. Takes up government and administration at all levels from the departmental offices to the board of trustees.

Business and Business Education

BUSINESS EDUCATION MAJORS

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 81 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.
2. The required courses in either of the majors listed below.
3. One minor of 27 quarter hours outside the field of Business and Business Education.
4. 27 to 35 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

BUSINESS EDUCATION MAJOR

(With Concentration in Office Occupations)

Required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 1 - -	Typewriting I - - - - -	2
Bus. 2 - -	Typewriting II - - - - -	2

Bus.	3	- -	Typewriting III	- - - - -	2
Bus.	4	- -	Advanced Typewriting and Office Practice	- -	4
Bus.	10*	- -	Beginning Gregg Shorthand	- - - - -	4
Bus.	11	- -	Intermediate Gregg Shorthand	- - - - -	4
Bus.	12	- -	Shorthand Transcription	- - - - -	3
Bus.	20	- -	Principles of Accounting I	- - - - -	4
Bus.	21	- -	Principles of Accounting II	- - - - -	4
Bus.	41	- -	Introduction to Business	- - - - -	3
Bus.	54	- -	Consumer Economic Problems	- - - - -	3
Bus.	131	- -	Business Law I	- - - - -	2
Bus.	252	- -	Office Management	- - - - -	-
			<i>or</i>		
Bus.	256	- -	Business Organization and Management	- -	-
			<i>or</i>		
Bus.	261	- -	Retail Store Operation and Management	- -	3
B.Ed.	272	- -	The Business Curriculum	- - - - -	3
Econ.	30	- -	Introductory Economics	- - - - -	5
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*Students who have had one year of high school shorthand or the equivalent should see catalog descriptions for Bus. 17 and Bus. 18.

Recommended electives in Business: 60, 115, 132, 133.

Recommended electives in areas other than Business: Economics 102, 200, 202, 203, 210, 241, and 277; Geography 112; English 4b, 210; Speech 5.

Qualifying examinations may be taken for exemption from Bus. 1, 2, 3, 10, 11, and 20; but passing these examinations does not give credit toward a degree in Business or Business Education.

**BUSINESS EDUCATION MAJOR
(With Concentration In Distributive Education)**

Required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
Econ.	30	- - Introductory Economics	- - - - - 5
Bus.	41	- - Introduction to Business	- - - - - 3
Bus.	54	- - Consumer Economic Problems	- - - - - 3
Bus.	71	- - Retailing	- - - - - 3
Bus.	72	- - Salesmanship	- - - - - 3
Bus.	74	- - Merchandise Information (Textiles)	- - - - - 2
Bus.	76	- - Display	- - - - - 4
Bus.	131	- - Business Law I	- - - - - 2
Bus.	132	- - Business Law II	- - - - - 2
Bus.	158	- - Psychology of Advertising	- - - - - 3
Bus.	164	- - Marketing	- - - - - 3
Bus.	250	- - Business Finance	- - - - - 3
Bus.	261	- - Retail Store Operation and Management	- -
Bus.Ed.	262	- - Philosophy and Organization of Distributive Education	- - - - - 3
Bus.Ed.	263	- - Coordination Techniques	- - - - - 3
Bus.Ed.	272	- - The Business Curriculum	- - - - - 3
			48

Recommended electives in Business: 1, 2, 3, 4, 20, 21, and 115.

Recommended electives in areas other than Business and Business Education: Economics 102, 200; Educational Psychology and Guidance 210, 212; and Speech 5.

Work experience requirements vary from state to state. Students should plan this part of their program with their adviser during their freshman year. Approved work experience of at least 1200 hours is required. A notarized affidavit must be filed with the adviser.

For certification in most states, Education 272, Principles of Vocational Education is required.

Qualifying to teach typewriting and bookkeeping is highly recommended for distributive education majors because these are such common business subjects in high schools.

Business Education Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 1	- - Typewriting I	- - - - - 2
Bus. 2	- - Typewriting II	- - - - - 2
Bus. 3	- - Typewriting III	- - - - - 2
Bus. 4	- - Advanced Typewriting and Office Practice	- - - - - 4
Bus. 10, 11, 12**	- - Beginning, Intermediate Gregg Shorthand and Transcription	- - - - - 11
	<i>or</i>	
Bus. 20, 21**	- - Principles of Accounting I and II	- - - - - 8
Ed. 150c*	- - Methods of Teaching Business Education in the Secondary School	- - - - - 3
Bus. Electives	- - - - -	- - - - - 3-6
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*B.Ed. 353 through 358, Improvement of Instruction in the Business Subjects, (two to four hours credit) or B.Ed. 272, The Business Curriculum, (three hours credit) may be substituted for Ed. 150c with the permission of the minor adviser.

**Eight quarter hours or the passing of a proficiency test is required in Colorado for certification to teach shorthand, typewriting or bookkeeping in high schools.

BUSINESS MAJOR
Bachelor of Arts Degree (Liberal Arts)

The following program is required:

1. Common Courses listed on page 48.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 20	- - Principles of Accounting I	- - - - - 4
Bus. 21	- - Principles of Accounting II	- - - - - 4
Bus. 22	- - Principles of Accounting III	- - - - - 4
Bus. 41	- - Introduction to Business	- - - - - 3
Bus. 54	- - Consumer Economic Problems	- - - - - 3
Bus. 115	- - Business Correspondence	- - - - - 3
Bus. 131	- - Business Law I	- - - - - 2
Bus. 132	- - Business Law II	- - - - - 2
Bus. 133	- - Business Law III	- - - - - 2
Bus. 164	- - Marketing	- - - - - 3
Bus. 252	- - Office Management	- - - - - 3
Bus. 256	- - Business Organization and Management	- - - - -
	<i>or</i>	
Bus. 261	- - Retail Store Operation and Management	- - - - - 3
Econ. 30	- - Introductory Economics	- - - - - 5
Econ. 102	- - Contemporary Economic Problems	- - - - - 3
Bus. or Econ. Electives	- - - - -	- - - - - 4
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3. One minor of 27 hours outside the field of Business.
4. Sixty hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

Business Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bus. 20	Principles of Accounting I	4
Bus. 21	Principles of Accounting II	4
Bus. 115	Business Correspondence	3
Bus. 131	Business Law I	2
Bus. 252	Office Management	2
	<i>or</i>	
Bus. 256	Business Organization and Management	2
	<i>or</i>	
Bus. 261	Retail Store Operation and Management	3
Econ. 30	Introductory Economics	5
Electives in Business or Economics		6
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Description of Courses

BUSINESS

1. TYPEWRITING I. *Two hours credit.*

A beginning course in typewriting. Emphasis will be given to both personal and vocational use. Students with one year of high school typewriting or the equivalent who can pass a qualifying examination may be exempted from this course. Students with one year of high school typewriting or the equivalent may not take this course for credit.

2. TYPEWRITING II. *Two hours credit.*

Prerequisite, Bus. 1 or equivalent and ability to type minimum of 30 words a minute with 95% accuracy. The second course in typewriting. Emphasis will be strictly on vocational use. Students who have had two years of high school typewriting or the equivalent cannot take this course for credit.

3. TYPEWRITING III. *Two hours credit.*

Prerequisite, Bus. 2 or equivalent and ability to type minimum of 40 words a minute with 97% accuracy. The third course in typewriting. Emphasis will be on speed and accuracy building and advanced production procedures.

4. ADVANCED TYPEWRITING AND OFFICE PRACTICE. *Four hours credit.*

Prerequisite, Bus. 3 or the equivalent. A review of typewriting principles and their application to actual office work such as letters, forms, manuscripts, etc. Practice in the use of filing systems, duplicating and dictating machines of various kinds. Stencils and masters for duplication are cut and proofed. Office procedures are studied and put into practice.

10. BEGINNING GREGG SHORTHAND. *Four hours credit.*

Prerequisite, Bus. 1 or equivalent. Course comprises complete theory of Gregg shorthand simplified. Students who have had one year of high school shorthand or the equivalent cannot take this course for credit.

11. INTERMEDIATE GREGG SHORTHAND. *Four hours credit.*

Prerequisite, Bus. 10 or equivalent. Course comprises intensive review of Gregg shorthand theory and completion of *Gregg Dictation Simplified*. Students who have had two years of high school shorthand or the equivalent cannot take this course for credit.

12. SHORTHAND TRANSCRIPTION. *Three hours credit.*

Prerequisites, Bus. 3 or equivalent and B.Ed. 11 or equivalent. Emphasis is upon rapid, accurate transcription, speed dictation, punctuation, and other office skills.

17. SHORTHAND REVIEW I. *Four hours credit.*

Prerequisite, at least one year of high school shorthand or the equivalent. A review of the theory of Gregg shorthand simplified with considerable emphasis on dictation and transcription.

18. SHORTHAND REVIEW II. *Four hours credit.*

Prerequisite, Bus. 17 or at least two years of high school shorthand or the equivalent. This course is devoted primarily to dictation and transcription.

20. PRINCIPLES OF ACCOUNTING I. *Four hours credit.*

A beginning course in accounting. Students who have previously studied bookkeeping or accounting may be exempted from this course by passing a qualifying examination. Common business transactions are recorded in various journals, summarized in general and subsidiary ledgers, and the effect of these transactions is reported on classified financial statements.

21. PRINCIPLES OF ACCOUNTING II. *Four hours credit.*

Prerequisite, Bus. 20 or equivalent. The emphasis in this course is on negotiable instruments, accruals, adjusting current assets and fixed assets, the combined cash journal, the voucher system and accounting for taxes. A practice set is completed.

22. PRINCIPLES OF ACCOUNTING III. *Four hours credit.*

Prerequisite, Bus. 21 or equivalent. Special accounting problems of businesses organized as partnerships, corporations, or by departments are studied. Some emphasis is given to accounting for a manufacturing business. Financial statements are analyzed by using percentages and ratios. A practice set is completed.

41. INTRODUCTION TO BUSINESS. *Three hours credit.*

This is a general exploratory and orientation course in the areas of business and commerce. A background is provided for the study of subsequent courses in business.

54. CONSUMER ECONOMIC PROBLEMS. *Three hours credit.*

The problems of the consumer in management of his income, buying goods and services, and understanding the place of the consumer in our economy are emphasized in the course.

60. OFFICE PRACTICE: CALCULATING MACHINES. *Two hours credit.*

A beginning course in the operation and use of ten-key and full bank adding-listing machines, rotary and key-driven calculators.

71. RETAILING. *Three hours credit.*

A survey course of retailing principles and practices. The business policies, structure, and operation factors of a variety of distributive businesses are studied.

72. SALESMANSHIP. *Three hours credit.*

Principles and practices of retail selling. Actual sales demonstrations are presented.

§74. MERCHANDISE INFORMATION (Textiles). (Credit may be obtained in Business or Home Economics.) *Two hours credit.*

A study of fabrics and textile merchandise. Fibers, yarns, and finishing agents will be studied in relation to selection, use, salability, and care of fabrics.

76. DISPLAY. *Four hours credit.*

A workshop designed for teachers of distributive education. This course introduces the student to techniques of display and lettering. Emphasis is placed on "salable" card copy and display. Actual displays are "dressed."

115. BUSINESS CORRESPONDENCE. *Three hours credit.*

Prerequisite, ability to typewrite. Basic principles and practices in the preparation of business correspondence are studied and applied.

127. PAYROLL ACCOUNTING. *Two hours credit.*

Prerequisite, Bus. 20 or equivalent. A study is made of the laws influencing the payroll records businesses must keep. Payroll routine and reports are studied and practiced.

131. BUSINESS LAW I. *Two hours credit.*

This course introduces the student to law and its social and personal applications as especially applicable to business. It considers courts and procedure, the law, its origin and development. The main part of the course is devoted to a study of fundamental law of contracts.

132. BUSINESS LAW II. *Two hours credit.*

Prerequisite, Bus. 131, or equivalent. Further study of business law as it applies to everyday business situations, especially in regard to negotiable instruments, sales, bailments and transportation.

133. BUSINESS LAW III. *Two hours credit.*

Prerequisite, Bus. 131 or 132. Further study of law as it applies to everyday business situations, especially in relation to: surety and guarantee, insurance, principal and agent, employer and employee, debtors and creditors, wills, real estate, partnership, corporation, landlord and tenant, and personal property.

158. PSYCHOLOGY OF ADVERTISING. *Three hours credit.*

A study of psychological principles and how they affect advertising.

164. MARKETING. *Three hours credit.*

The purpose of this course is to give students an understanding of the place of marketing in our economic system. Retailing will be given but little emphasis.

§206. PSYCHOLOGY OF PERSONNEL MANAGEMENT. (Credit may be obtained in Business or Educational Psychology and Guidance.) *Four hours credit.*

A study of the principles and techniques of personnel management with attention given to their psychological foundations.

228. FEDERAL INCOME TAX FOR INDIVIDUALS. *Three hours credit.*

Study and application of the principles in preparing federal income tax returns for individuals.

233. APPLIED BUSINESS LAW. *Four hours credit.*

A comprehensive review of business law for the business teacher with practical applications to everyday situations. This course is not designed to be preceded by the undergraduate sequence.

250. BUSINESS FINANCE. *Three hours credit.*

Prerequisites, Bus. 20, 21. In this course the problems of financing business enterprise are studied. The scope includes working capital financing, budgeting, analyzing financial statements, and intermediate and long-term financing. Cases will be used to illustrate.

251. COLORADO BUSINESS AND INDUSTRY. (Summers only.) *Three hours credit.*

A traveling workshop making field trips to industrial, agricultural and commercial business establishments in and around the Greeley-Denver area.

252. OFFICE MANAGEMENT. *Three hours credit.*

The emphasis in this course is on the functions of the office and office organization; work in the office, office layout, equipment, supplies, and forms; personnel problems in the office; and costs and control of office work.

256. BUSINESS ORGANIZATION AND MANAGEMENT. *Three hours credit.*

Topics include legal forms of ownership, financing a new business, location, building and layout, purchasing, personnel, internal organization, sales policies, insurance, and records.

257. PRINCIPLES OF INSURANCE. *Three hours credit.*

The different types of insurance coverage available and the kinds of policies are presented in this course. Primary emphasis is placed on life insurance. Each student will develop a tentative insurance program.

261. RETAIL STORE OPERATION AND MANAGEMENT. *Three hours credit.*

Prerequisite, Bus. 71. Functions of the main division of retailing. Emphasis is on the responsibilities of the store manager and current operating practices.

275. JOB ANALYSIS. *Three hours credit.*

Job analysis is studied as part of a job-study program. Techniques of preparing job analysis forms, collecting information, processing information, and putting the job analysis to work are considered. Job descriptions are developed and analyzed.

278. SALES MANAGEMENT. *Four hours credit.*

Prerequisite, Bus. 71 and 72 or equivalent. Sales policies and planning, sales promotion, sales organization, channels of distribution will be presented in the course as well as other topics in sales management.

BUSINESS EDUCATION**171. EVALUATION IN BUSINESS EDUCATION.** *Two hours credit.*

Designed to supplement the methods course with a foundation in techniques of evaluation including the preparation and administration of tests in the skill and content areas of business subjects and the use of other evaluative materials in the field.

255. CONSUMER EDUCATION IN THE SCHOOLS. *Four hours credit.*

A study of the need for consumer education in the elementary and high school and in the college; the objectives of this area; methods of organizing a program in the school; the contribution of various subject-matter areas; and materials and methods of teaching consumer education.

262. PHILOSOPHY AND ORGANIZATION OF DISTRIBUTIVE EDUCATION. *Three hours credit.*

A survey of the purposes, organization, and operation of secondary-school, post-high school, and adult distributive education programs.

263. COORDINATION TECHNIQUES. *Three hours credit.*

Prerequisite, B.Ed. 262. Practical problems encountered by the coordinator in his daily work concerning the cooperative part-time program.

266. DEVELOPMENT OF DISTRIBUTIVE EDUCATION INSTRUCTIONAL MATERIALS. (Summers only.) *Four hours credit.*

Instructional material will be collected from original sources and organized into distributive education course outlines.

272. THE BUSINESS CURRICULUM. *Three hours credit.*

Prerequisite, Ed. 151, Student Teaching. The business curriculum in the high school is the basic consideration in this course. This is the final course in business education for prospective teachers.

277. ADULT PROGRAMS IN BUSINESS EDUCATION. (Summers only.) *Four hours credit.*

Organizing, promoting, and supervising an adult program. Selecting and preparing teachers, course building, forms of effective presentation, public relations, and community organization are included.

280a,b,c,d,e,f,g,h,i,j,k. **WORKSHOP IN BUSINESS EDUCATION.** (Summers only.) *Three hours credit each.*

Through cooperative effort problems in business education will be solved. Not more than three of these courses may be applied to any one degree.

281a,b,c. **WORKSHOP IN DISTRIBUTIVE EDUCATION.** (Summers only.) *Three hours credit.*

An intensive course designed primarily for distributive education coordinators.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of research techniques and their application to business education. Required of all business education majors who are candidates for the master's degree.

- 322. INDIVIDUAL STUDIES.** *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

This course provides an opportunity for the graduate student to engage in individual research in the field of business education.

- 353. IMPROVEMENT OF INSTRUCTION IN BOOKKEEPING.** (Summers only.) *Two hours credit.*

Prerequisite, knowledge of bookkeeping. The instruction in this course is planned primarily for those who have had experience teaching bookkeeping. Objectives, content, good teaching practices, and evaluation as well as the specific teaching problems of the members of the class are emphasized.

- 354. IMPROVEMENT OF INSTRUCTION IN OFFICE PRACTICE.** (Summers only.) *Four hours credit.*

Analysis of methods, materials, and equipment for office practice classes. Acquiring proficiency in operating various office machines is part of the course. New equipment and new office procedures are presented.

- 355. IMPROVEMENT OF INSTRUCTION IN DISTRIBUTIVE EDUCATION.** (Summers only.) *Four hours credit.*

Important procedures and effective techniques used in teaching high school cooperative classes in the distributive occupations and in evening classes for employed sales and supervisory personnel.

- 356. IMPROVEMENT OF INSTRUCTION IN SHORTHAND.** (Summers only.) *Two hours credit.*

Prerequisite, knowledge of a shorthand system. Primarily for experienced teachers who have had an undergraduate methods course in shorthand. Emphasis is upon improved methods of instruction in the teaching of shorthand.

- 357. IMPROVEMENT OF INSTRUCTION IN TYPEWRITING.** (Summers only.) *Two hours credit.*

Prerequisite, ability to typewrite. Primarily for experienced teachers who have had an undergraduate methods course in typewriting. Emphasis is upon improved methods of instruction in the teaching of typewriting.

- 358. IMPROVEMENT OF INSTRUCTION IN BASIC BUSINESS SUBJECTS.** (Summers only.) *Two hours credit.*

This course emphasizes the teaching of general business with some emphasis on the teaching of business law, consumer education, and advanced general business. Individual and group work on objectives, content, teaching practices, and evaluation.

- 370. ADMINISTRATION AND SUPERVISION OF BUSINESS EDUCATION.** *Four hours credit.*

This course deals with the problems of administrators and supervisors who are interested in business education as well as heads of departments of business education.

- 371. TESTS AND MEASUREMENTS IN BUSINESS EDUCATION.** *Four hours credit.*

A survey of tests and measurements in business education, their uses and methods of construction, and presentation of necessary statistical tools for test interpretation especially applicable to business education. A study is made of prognostic tests, vocational aptitude tests, and published achievement tests.

- 372. CURRICULUM CONSTRUCTION IN BUSINESS EDUCATION.** (Summers only.) *Four hours credit.*

High school curriculums and courses of study in business subjects will be planned and developed in this course. The history, present status, philosophy, and trends of curriculum construction will be discussed.

- 373. CURRENT PROBLEMS IN BUSINESS EDUCATION.** *Four hours credit.*

Current problems in business education are studied and discussed by individuals, committees and the class.

374. COOPERATIVE PROGRAMS IN BUSINESS EDUCATION. (Summers only.) *Four hours credit.*

The aim of the course is to define cooperative programs in business education, to describe the typical types, to explore basic philosophies, and to clarify the nature and scope of cooperative programs by portraying its development in schools.

399. THESIS. *Eight hours credit.*

400. INTRODUCTION TO DOCTORAL RESEARCH. (Summers only.) *Four hours credit.*

A study of research techniques and their application to business education. Required of all business education majors who are candidates for the doctor's degree.

401. ANALYSIS OF RESEARCH IN BUSINESS EDUCATION. (Summers only.) *Four hours credit.*

An analysis of the best studies that have been done in business education. A study will be made of research techniques as well as the findings of these research studies. Emphasis will be placed upon determining further needed research.

402. ISSUES AND TRENDS IN BUSINESS EDUCATION. (Summers only.) *Four hours credit.*

A seminar course designed to have individual and group analysis and discussion of the various issues in business education. Trends in the field will also be analyzed and clarified.

403. POST HIGH SCHOOL BUSINESS EDUCATION. (Summers only.) *Four hours credit.*

A course planned for those teaching or planning to teach business or business education in post high school institutions — public and private business schools, junior colleges, and colleges educating business teachers. Curriculum and instructional practices and problems are emphasized.

Educational Psychology and Guidance

Degree programs offered in Educational Psychology and Guidance are as follows: (1) a graduate major in Educational Psychology and Guidance leading to the Master of Arts degree; (2) an emphasis in School Psychology or Guidance and Counseling leading to the Specialist in Education degree; (3) an area of concentration in Educational Psychology and Guidance leading to the Doctor of Education degree.

For each of these degrees, basic proficiency in the following six areas is required: (1) Guidance and Counseling; (2) General Psychology; (3) Growth and Development; (4) Educational Psychology and Learning; (5) Measurement, Evaluation, and Research; and (6) Personal, Emotional, and Social Adjustment. In addition, courses, individual studies, practicum, and internships designed to meet specific degree or certification requirements must be met.

All areas of concentration must be planned with the student's adviser in Educational Psychology and Guidance. Copies of programs required for each degree may be obtained from the adviser or from the Educational Psychology and Guidance office.

Description of Courses

GUIDANCE AND COUNSELING

101. GUIDANCE IN THE CLASSROOM. *Three hours credit.*

A general introduction to guidance: a study of the guidance activities normally carried on by the classroom teacher and a development of appreciation for their value in the educative process.

201. GUIDANCE IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Prerequisite, senior or graduate standing. The purposes and scope of guidance at the elementary level, with emphasis placed on the functions of guidance in relation to children's needs, the functions of different guidance workers are indicated and an analysis is made of representative programs of elementary schools.

§203. DEVELOPMENT AND GUIDANCE OF THE YOUNG CHILD.
(Credit may be obtained in Educational Psychology and Guidance or Home Economics.) *Three hours credit.*

The physical, emotional and social growth processes as they apply in understanding the total development of the preschool years with appropriate guidance procedures emphasized. The functions, techniques and physical setting of the preschool are studied. Observation and participation for two hours per week in the preschool must be arranged.

§206. PSYCHOLOGY OF PERSONNEL MANAGEMENT. (Credit may be obtained in Business or Educational Psychology and Guidance.)
Four hours credit.

For description of this course, see page 113.

207. GUIDANCE INSTITUTE. *Three or four hours credit.*

Prerequisite, upperclassman or graduate standing. A course designed to meet the needs of teachers and counselors wishing to upgrade their proficiencies in guidance activities.

210. PRINCIPLES AND PRACTICES OF GUIDANCE. *Four hours credit.*

Introductory course for professional guidance workers. A study of individual and society needs for guidance and the development of a guidance point of view. Includes purposes and scope of guidance services, concepts, principles, personnel, and basic elements of such services.

211. TECHNIQUES IN GROUP GUIDANCE. *Three hours credit.*

Prerequisites, E.P.G. 101 or 210. A study of information needed and methods used by home room or guidance teachers who help students in groups, grade 7-12, with educational planning, vocational choice and interpersonal relations.

212. OCCUPATIONAL INFORMATION AND ANALYSIS IN VOCATIONAL GUIDANCE. *Three hours credit.*

Experience in using, reviewing, and evaluating occupational information. Study of sources and types of material, occupational filing plans, and practical techniques at the secondary school level.

213. PRINCIPLES OF VOCATIONAL EDUCATION. *Three hours credit.*

A study of the philosophy and development of vocational education, legislation, state policies, school programs, and non-school agencies and programs.

213a,b,c. WORKSHOP IN VOCATIONAL EDUCATION. (Summers only.)
One to three hours credit each.

The workshop in vocational education is set up to help school people work out the problems of organizing and administering vocational education. Particular attention is given to local, state and federal relationship under existing legislation.

214a,b. GUIDANCE WORKSHOP. (Summers only.) *Three hours credit each.*

Prerequisite, senior or graduate standing. This course is designed to provide concentration of time and study on a special problem in guidance.

The needs and interests of class members will determine to a certain extent the course content.

305. PERSONNEL WORK IN COLLEGES AND UNIVERSITIES. *Three hours credit.*

Study of the principles and functions of student personnel work in higher education including matters of admission, records, health, housing activities, student organizations and government, student union, financial aid, scholastic standards, individual counseling, student discipline, placement, and administration of personnel work.

306a,b,c,d,e. SEMINAR IN COLLEGE PERSONNEL WORK. (Summers only.) *One to four hours credit each.*

This is to be a series of quarterly seminars in the following phases of college personnel work: (a) Student Housing, (b) Admissions and Records, (c) Health and Counseling Services, (d) Student Activities, Organizations and Government, and (e) Job Placement. The philosophy, organization, and practice of these services will be studied as training for student personnel work in colleges.

311. ORGANIZATION AND ADMINISTRATION OF GUIDANCE SERVICES. *Three hours credit.*

The organization and administration of guidance services in the public school system, with emphasis being placed on types of organizations, use of records, in-service training of workers, evaluation, and the role of various staff members.

312. ANALYSIS OF THE INDIVIDUAL. *Three hours credit.*

Prerequisites, E.P.G. 270 and 271. A course designed to develop understanding and skills in collecting and interpreting data concerning the individual, and the use of such data in case studies and follow-up procedures.

315. COUNSELING TECHNIQUES. *Three hours credit.*

Prerequisite, at least one course in guidance. An intensive study of the use of the interview for all guidance purposes. Emphasis is given to such approaches as the "directive," "nondirective," and "eclectic" methods, with opportunity provided for their application.

316. CLINICAL METHODS IN COUNSELING. *Four or five hours credit.*

Prerequisites, E.P.G. 210, 211, 285, 315, 380. A survey of and practice in clinical methods in counseling and psychotherapy in relation to mental deficiency, special abilities and disabilities, behavior problems, and personality disorders.

410. SUPERVISED PRACTICE IN GUIDANCE SERVICES. *Three hours credit.*

Application for admission must be approved by supervisors and by the head of the educational psychology and guidance staff. Qualified graduate students majoring or minoring in educational psychology and guidance engage in guidance activities under the supervision of one or more members of the staff.

415. SUPERVISED PRACTICE IN COUNSELING. *Three hours credit.*

Application for admission must be approved by supervisors and by the head of the educational psychology and guidance staff. Qualified graduate students majoring or minoring in educational psychology and guidance engage in counseling interviews and activities under the supervision of one or more members of the staff.

GENERAL PSYCHOLOGY

20. GENERAL PSYCHOLOGY AND PERSONAL ADJUSTMENT. *Five hours credit.*

Designed to help students adjust to their physical and social environment in such areas as effective study, learning and maturation, motivation, perception, emotional control, personality development and methods of studying human behavior through an understanding and application of some of the basic principles governing human behavior.

220. GENERAL PSYCHOLOGY AND THE PRINCIPLES OF BEHAVIOR. *Five hours credit.*

An introductory course in psychology designed to help students develop a basic understanding of human behavior. Principles of psychology are developed and applied in the areas of perception and cognition, maturation, motivation, learning, emotions, and personal and social adjustment.

321. TRENDS IN EDUCATIONAL PSYCHOLOGY AND GUIDANCE. *Four hours credit.*

Prerequisite, E.P.G. 30 or 40 or equivalent. A course designed to summarize educational applications of recent psychological research in the areas of human growth and development, the learning process, mental hygiene, guidance, educational outcomes and their appraisals, and implementation of the curriculum.

322. INDIVIDUAL STUDIES IN EDUCATIONAL PSYCHOLOGY AND GUIDANCE. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline a definite problem and spend a minimum of twenty-five clock hours for each quarter hour of college credit. Two typewritten copies of a well-written paper must be filed before credit is given, one with the instructor who directs the study and one with the Dean of the Graduate Division.

420. SEMINAR IN RESEARCH. *No credit.*

Prerequisite, doctoral candidates only. Designed for doctoral candidates who are in the process of planning their research. Individuals will present their tentative research proposals and receive criticism from the class and the staff. By permission of the instructor only.

GROWTH AND DEVELOPMENT**30. PSYCHOLOGY OF CHILDHOOD AND YOUTH.** *Three hours credit.*

Prerequisites, E.P.G. 20 or equivalent, and sophomore standing. A course designed to assist prospective teachers to build competence in understanding and guiding the physical, mental, social and emotional development of children and youth; emphasizes total psychological development from infancy to maturity.

§200. THE EDUCATION (PSYCHOLOGY) OF EXCEPTIONAL CHILDREN. (Credit may be earned in Special Education or Educational Psychology and Guidance.) *Three hours credit.*

For description of this course, see page 126.

230. PSYCHOLOGY OF CHILDHOOD AND ADOLESCENCE. *Three hours credit.*

Prerequisites, E.P.G. 20 or equivalent. A course designed to assist prospective teachers to understand and guide the physical, mental, social, and emotional development of children and youth. Total psychological development from infancy to maturity is emphasized. Recommended as substitute for E.P.G. 30.

331. CHILD PSYCHOLOGY. *Three hours credit.*

Prerequisite, teaching experience recommended. A study of the growth, adjustment and capacities, of children from conception through the elementary school years. Emphasis is placed on the theories of development and on what to do in guiding the development of normal children.

332. PSYCHOLOGY OF ADOLESCENCE. *Three hours credit.*

Prerequisite, teaching experience recommended. This course deals with the change from the period of childhood into adulthood and the resultant physical, mental, social, and emotional growth and its implications for guiding the adolescent toward a wholesome realization of his potentialities.

334. PSYCHOLOGY OF INDIVIDUAL DIFFERENCES. *Three hours credit.*

Prerequisites, E.P.G. 30 or 40 or equivalent. The nature and extent of differences among individuals and differences between such groups as men

and women, age, class, race and nationality; factors related to these differences; and the application of the facts of human variability to educational, vocational, social and personnel work.

EDUCATIONAL PSYCHOLOGY AND LEARNING

40. EDUCATIONAL PSYCHOLOGY. *Three hours credit.*

Prerequisites, E.P.G. 20, 30, or equivalent, and sophomore standing. A course designed to assist prospective teachers to build competence in directing pupil learning based upon psychological principles of learning, motivation, readiness, practice, transfer, individual differences, and evaluation.

240. PSYCHOLOGY OF LEARNING. *Three hours credit.*

Prerequisites, E.P.G. 20 and 30, or equivalents. A course designed to develop attitudes, understandings, and proficiencies in the application of psychological principles to the educative process. Principles, theories and research are applied to learning, motivation, transfer, readiness, remembering and forgetting, individual differences, social and emotional adjustments and evaluation. A substitute for E.P.G. 40.

340. THEORIES OF LEARNING. *Four hours credit.*

Prerequisites, E.P.G. 30 and 40, or equivalent. The several theories of learning are examined critically for the purpose of developing a working control of the learning process by the student.

MEASUREMENT, EVALUATION AND RESEARCH

270. PRINCIPLES AND PRACTICES IN TESTING AND MEASUREMENT. *Four hours credit.*

A basic course in the construction, use, administration and interpretation of tests with special emphasis on the teacher-made and standardized tests of scholastic achievement and the relationship of achievement to measures of aptitudes and abilities. Attention is given to statistical interpretation of the validity, reliability, and standardization of tests.

271. STANDARDIZED INSTRUMENTS FOR GROUP MEASUREMENT. *Four hours credit.*

A critical review of standardized aptitude tests. Experiences in administration, use, and interpretation of educational and vocational tests of aptitude, interest, and personality.

\$275a. DESCRIPTIVE STATISTICS. (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

For description of this course, see page 199.

\$275b. STATISTICAL INFERENCE. (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

For description of this course, see page 199.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

An orientation to graduate study in general and to the nature and methods of research in particular. Required of all first-year graduate students. Should be taken during the first quarter of graduate work.

301. PRACTICUM. *Three or four hours credit.*

Open only by invitation to resident graduate students. Supervised professional activity in the student's major field, approximately two hours per day. A written report is required.

373a. INDIVIDUAL TESTS OF INTELLIGENCE. *Three hours credit.*

Prerequisite, consent of instructor. The history and description of the Revised Stanford-Binet Intelligence Scale, the Wechsler-Bellevue Intelligence Scale and the Wechsler Intelligence Scale for Children; their use in schools, and the interpretation of results.

373b. LABORATORY COURSE IN INDIVIDUAL TESTS OF INTELLIGENCE. *Two hours credit.*

Prerequisites, E.P.G. 373a and consent of instructor. This course provides laboratory experience in administering any one of the following individual tests of intelligence; the Revised Stanford-Binet Intelligence Scale, the Wechsler-Bellevue Intelligence Scale and the Wechsler Intelligence Scale for Children.

§375. DESIGN AND ANALYSIS OF EXPERIMENTS IN EDUCATION. (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

For description of this course, see page 199.

399. THESIS. *Eight hours credit.***400. INTRODUCTION TO DOCTORAL RESEARCH.** *Four hours credit.*

Prerequisite, master's degree. An introduction to research and advanced graduate study. Required if the student has not previously taken Ed. 300 or the equivalent.

401. PRACTICUM. *Eight hours credit.*

Prerequisite, master's degree. Project or supervised professional activity, required of all candidates for the Specialist in Education degree. A written report of the project or activity must be submitted.

423. DOCTORAL RESEARCH STUDY. *Maximum eighteen hours credit.***PERSONAL, EMOTIONAL AND SOCIAL ADJUSTMENT****281. PERSONALITY OF YOUNG CHILDREN.** *Two or three hours credit.*

Prerequisite, a course in psychology. The development of personality from birth through the elementary school years including techniques for developing fine traits, and methods of diagnosis and treatment of problems of personality development which arise in the home and school.

§285. MENTAL HYGIENE AND EMOTIONAL ADJUSTMENT. (Credit may be obtained in Educational Psychology and Guidance or Health and Physical Education or Social Studies.) *Three hours credit.*

Prerequisite, one course in psychology. A general course designed to give an understanding of the problems and principles of mental hygiene observed in normal community and school life.

§291. SOCIAL PSYCHOLOGY. (Credit may be obtained in Social Studies or Educational Psychology and Guidance.) *Three hours credit.*

For description of this course, see page 210.

§292. PROBLEMS OF INTERGROUP RELATIONS. (Credit may be obtained in Educational Psychology and Guidance or Social Studies.) *Two hours credit.*

A course dealing with the evidence as to all types of intergroup relations—race, nationality, minority groups, income groups, urban and rural groups—and with methods of teaching and measuring intergroup relations.

§293. SOCIODRAMA. (Credit may be obtained in Social Studies or Educational Psychology and Guidance.) *Two hours credit.*

For description of this course, see page 211.

§294. SOCIOMETRY. (Credit may be obtained in Social Studies or Educational Psychology and Guidance.) *Two hours credit.*

For description of this course, see page 211.

§380. PERSONALITY DEVELOPMENT. (Credit may be obtained in Educational Psychology and Guidance or Social Studies.) *Three hours credit.*

Prerequisites, E.P.G. 20 and teaching experience or its equivalent. The course is designed to build an understanding of the psychological factors and principles underlying personality development and adjustment.

382a. INTRODUCTION TO PROJECTIVE TECHNIQUES. *Three hours credit.*

Prerequisite, permission of instructor. Develops theories and principles underlying projective techniques and their diagnostic and therapeutic value. Special attention is given to the Rorschach, thematic apperception tests, and other projective techniques as used in working with children, adolescents, and college students.

382b. PROJECTIVE TECHNIQUES. *Three hours credit.*

Prerequisite, permission of instructor. This course is concerned with the administration, scoring, and application and interpretation of Rorschach, T.A.T. or other projective instruments used in working with children, adolescents and college students.

384. GROUP DYNAMICS IN HUMAN RELATIONS. (Credit may be obtained in Educational Psychology and Guidance or Social Studies.) *Three hours credit.*

Prerequisite, E.P.G. 285. A course designed to give an understanding of the principles of group dynamics as applied to group situations including the classroom.

388. ABNORMAL PSYCHOLOGY. *Three hours credit.*

Prerequisite, E.P.G. 285 or equivalent, permission of instructor. The course is designed to give an understanding of abnormal behavior, its causes, symptoms, characteristics, classifications, and prevention. These concepts form a necessary background for courses in projective techniques and training as school psychologists.

Library Science

LIBRARY SCIENCE MINOR

The following program offers 27 quarter hours of credit to meet the North Central Association and the Northwestern Association requirements for a school librarian and teacher-librarian in a high school having a student enrollment of 499 or fewer.

The following courses are required:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
L.S. 208a	- - Audio-Visual Materials in Education - - - -	4
L.S. 280	- - Organization and Administration of a School Library - - - - -	4
L.S. 281	- - Classification and Cataloging - - - - -	4
L.S. 282	- - Reference Materials for School Libraries - -	4
L.S. 283	- - Book Selection for School Libraries - - - -	4
L.S. 284	- - The Librarian and Reading Guidance for Youth - - - - -	4
Electives	- - - - -	3
		27

The remaining four hours may be selected from following courses:

L.S. 149	- - Bookbinding for School Librarians - - - -	3
L.S. 221	- - Literature in the Elementary School - - - -	4
L.S. 226	- - Literature and Materials in the Secondary School - - - - -	4
L.S. 280d	- - Junior High School Library Workshop - - -	3
L.S. 322	- - Individual Studies in Library Science - - -	1-8

Description of Courses

LIBRARY SCIENCE

§149. BOOKBINDING FOR SCHOOL LIBRARIANS. (Credit may be obtained in Industrial Arts or Library Science.) *Three hours credit.*
For description of this course, see page 88.

§208a. AUDIO-VISUAL MATERIALS IN EDUCATION. (Credit may be obtained in Education or Library Science.) *Four hours credit.*
For description of this course, see page 99.

§221. LITERATURE IN THE ELEMENTARY SCHOOL. (Credit may be obtained in English or Library Science.) *Three hours credit.*
For description of this course, see page 149.

§226. LITERATURE AND MATERIALS IN THE SECONDARY SCHOOL. (Credit may be obtained in English or Library Science.) *Four hours credit.*
For description of this course, see page 149.

280. ORGANIZATION AND ADMINISTRATION OF A SCHOOL LIBRARY. (Summers only.) *Four hours credit.*

This course includes a consideration of the order and circulation procedures, supervising student personnel, the role of the librarian in the development of curriculum and guidance programs, the relationships of the librarian with teachers and administrators and with other local and state agencies.

280d. JUNIOR HIGH SCHOOL LIBRARY WORKSHOP. (Summers only.) *Three hours credit.*

Prerequisites, L.S. 280 or equivalent. Study of various problems involved in the administration of the junior high school library. Stresses the selection of appropriate materials and the problems involved in dealing with students of that age level. Study of recent approaches to teacher-student-library relationships.

281. CLASSIFICATION AND CATALOGING. (Summers only.) *Four hours credit.*

In this course the student learns the fundamentals of classification according to the Dewey System and the construction of a dictionary catalog for the school library. It will include all necessary processes from the time books are acquired until they are ready for circulation. Attention is also given to the library care of pamphlets and audio-visual materials.

282. REFERENCE MATERIALS FOR SCHOOL LIBRARIES. (Summers only.) *Four hours credit.*

A discussion of suitable reference materials for elementary and secondary school libraries. Covers selection principles and use of reference materials.

283. BOOK SELECTION FOR SCHOOL LIBRARIES. (Summers only.) *Four hours credit.*

Discussion of book selection principles and book selection aids for school libraries. Covers reading levels and interests of children and young people. Course discusses suitable trade book materials for both elementary and high school libraries.

284. THE LIBRARIAN AND READING GUIDANCE FOR YOUTH. (Summers only.) *Four hours credit.*

Acquaintance with and appreciation of books on various reading levels. The use of non-book materials and aids to stimulate and guide young people's reading. Deals with techniques to aid the individual student in selecting material at his level and to meet his needs.

322. INDIVIDUAL STUDIES IN LIBRARY SCIENCE. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline a definite problem and spend a minimum of twenty-five clock hours for each quarter hour of college credit. Two typewritten copies of a well-written paper must be filed before credit is given, one with the instructor who directs the study and one with the Dean of the Graduate Division.

Special Education

Degree programs in Special Education are offered as follows: (1) a major or minor at the undergraduate level; (2) a major at the master's level; (3) a graduate area of concentration leading to the Doctor of Education degree.

The program affords students the opportunity to qualify for a Colorado Special Education Certificate with emphasis on teaching the physically handicapped, the mentally retarded, the hard of hearing, the deaf, the blind and/or the partially sighted. Students may also qualify for a Speech Correctionist certificate.

The campus Special Education school, a cooperative project of the Greeley Public Schools and Colorado State College, provides a laboratory in which students may observe and do student teaching. At the present time, this laboratory school enrolls mentally retarded, physically handicapped, hard of hearing, and deaf children. An enlarged Special Education facility will be built soon at Colorado State College and will enroll all types of exceptional children.

SPECIAL EDUCATION MAJOR Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Spec. Ed. 164	Introduction to Speech Correction	3
Spec. Ed. 200	The Education (Psychology) of Exceptional Children	3
Spec. Ed. 210	Education of the Mentally Retarded Child	4
Spec. Ed. 211	Education of Severely Mentally Retarded Children	3
Spec. Ed. 212	Curriculum Development and Methodology for Mentally Retarded	4
Spec. Ed. 230	Care and Pathology of the Physically Handicapped	3
Spec. Ed. 265a	Clinical Practice in Speech Correction	1
F.A. 127	Art Crafts in the Elementary School	3
E.P.G. 230	Psychology of Childhood and Adolescence	3
E.P.G. 270	Principles and Practices in Testing and Measurement	4
H.P.E. 201	Health Education in the Elementary School	4
Sp. 16	Voice and Diction	4
Mus. 149	Music Methods and Materials for Elementary Teachers	3
Electives		6

3. One minor of 27 hours outside the field of Special Educa-

tion. A minor in elementary or secondary education is highly recommended.

4. 28-35 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

SPEECH CORRECTION MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.
2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Sp. 16	Voice and Diction	4
Spec. Ed. 164	Introduction to Speech Correction	3
Spec. Ed. 200	The Education (Psychology) of Exceptional Children	3
Spec. Ed. 253	Audiology	3
Spec. Ed. 253a	Practicum in Audiology	2
Spec. Ed. 254	Lip-Reading	3
Spec. Ed. 265	Speech Pathology	3
Spec. Ed. 265a	Clinical Practice in Speech Correction	8
Spec. Ed. 370	The Psychology of Speech	4
Spec. Ed. 375	Phonetics	4
E.P.G. 230	Psychology of Childhood and Adolescence	3
E.P.G. 270	Principles and Practices in Testing and Measurement	4
E.P.G. 285	Mental Hygiene and Emotional Adjustment	3
Elective		1
		<hr/> 48

3. One minor of 27 hours outside the field of Special Education. A minor in elementary or secondary education is highly recommended.
4. 28-35 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

SPECIAL EDUCATION MINOR

Required courses in the minor:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Spec. Ed. 164	Introduction to Speech Correction	3
Spec. Ed. 200	Education (Psychology) of Exceptional Children	3
Spec. Ed. 210	Education of the Mentally Retarded Child	4
Spec. Ed. 211	Education of Severely Mentally Retarded Children	3
Spec. Ed. 212	Curriculum Development and Methodology for Mentally Retarded	4
Spec. Ed. 265a	Clinical Practice in Speech Correction	1
E.P.G. 230	Psychology of Childhood and Adolescence	3
E.P.G. 270	Principles and Practices in Testing and Measurement	4
Electives		2
		<hr/> 27

SPEECH CORRECTION MINOR

Required courses in the minor:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Sp. 16	Voice and Diction	4
Spec. Ed. 164	Introduction to Speech Correction	3
Spec. Ed. 200	Education (Psychology) of Exceptional Children	3
Spec. Ed. 253	Audiology	3
Spec. Ed. 253a	Practicum in Audiology	2
Spec. Ed. 265	Speech Pathology	3
Spec. Ed. 265a	Clinical Practice in Speech Correction	3
E.P.G. 230	Psychology of Childhood and Adolescence	3
Electives		3
		27

Description of Courses**GENERAL AND ADMINISTRATION**

§200. THE EDUCATION (PSYCHOLOGY) OF EXCEPTIONAL CHILDREN. (Credit may be earned in Special Education or Educational Psychology and Guidance.) *Three hours credit.*

Prerequisite, one course in psychology. A study of brilliant, retarded, physically handicapped, and emotionally maladjusted children, with emphasis on methods of adjusting instruction to the needs of these children.

201. WORKSHOP IN SPECIAL EDUCATION. (Summers only.) *Three hours credit.*

A workshop designed for teachers and administrators. The following topics will be discussed: the philosophy and needs for special education, working relationships with the State Department and local community groups, certification of teachers, problems of financing, services available within the local school district, screening of pupils and requirements of medical reports.

202. COUNSELING PARENTS OF EXCEPTIONAL CHILDREN. *Three hours credit.*

This course is designed to present the techniques of working with parents of exceptional children. How to interpret a handicap to parents and how the parents and family can accept the children in the home is also developed.

301. ADMINISTRATION AND SUPERVISION OF SPECIAL EDUCATION. *Three or four hours credit.*

Problems of organization, administration and supervision of special education programs; finance and attendance, physical facilities, budgeting, needed equipment, community agencies and curriculum development.

302. MEASUREMENTS FOR HANDICAPPED CHILDREN. *Three hours credit.*

This course is designed to develop an understanding of and ability to interpret the results of psychological and educational tests. Emphasis on diagnosis and problems encountered on testing children who are visually, acoustically, orthopedically, mentally handicapped, or speech defective.

322. INDIVIDUAL STUDIES IN SPECIAL EDUCATION. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline a definite problem and spend a minimum of twenty-five clock hours for each quarter hour of college credit. Two type-written copies of a well-written paper must be filed before credit is given, one with the instructor who directs the study and one with the Dean of the Graduate Division.

401. RESEARCH SEMINAR IN SPECIAL EDUCATION. *Three hours credit.*

An analysis of studies and research pertaining to the education of exceptional children. Procedures for conducting and reporting research. A survey of critical problems and trends in special education.

402. PROBLEM SEMINAR IN SPECIAL EDUCATION. *Three hours credit.*

A course designed for leaders and resource personnel in Special Education. Emphasis will be placed on how to develop good leadership, the identification of major problem areas, the possible solutions of these problems, and evaluation of these solutions.

403. TRENDS IN SPECIAL EDUCATION. *Three hours credit.*

A course designed for the study of historical development of educational programs for exceptional children. A critical analysis of issues and trends in special education.

423. DOCTORAL RESEARCH STUDY. *Maximum eighteen hours credit.***MENTALLY RETARDED****210. EDUCATION OF THE MENTALLY RETARDED CHILD.** *Four hours credit.*

Prerequisite, Sp. Ed. 200. A study of the social, emotional, physical and mental characteristics of the mentally retarded child; methods of diagnosis and classification. The organization of special class programs and special teaching procedures.

211. EDUCATION OF SEVERELY MENTALLY RETARDED CHILDREN. *Three hours credit.*

Organization of special class and school programs for severely mentally retarded children. Diagnosis and classification. Development of teaching materials and techniques. Community organizations and parent education.

212. CURRICULUM DEVELOPMENT AND METHODOLOGY FOR MENTALLY RETARDED. *Four hours credit.*

Prerequisite, Sp. Ed. 200. This course will have as its main purpose the development of integrated experience-units for primary, intermediate, and pre-vocational mentally retarded children. Experience-centered units will be built around the following three areas: occupational, economic, and social. The course will consist of readings, lectures, observation, experimentation and meetings.

311. WORKSHOP FOR THE VOCATIONAL REHABILITATION OF MENTALLY RETARDED YOUTH. *Three hours credit.*

Prerequisite, Sp. Ed. 200. Emphasis will be on the development of a series of units which will parallel on-the-job training in the vocational rehabilitation of mentally retarded youth. Discussion of techniques in the following areas will also be emphasized: (1) evaluating vocational fitness, (2) job placement, (3) on-the-job supervision, and (4) follow-up services.

312. ADVANCED CURRICULUM DEVELOPMENT. *Four hours credit.*

Prerequisite, Spec. Ed. 212, teaching experience, and permission of adviser. This course will develop the application of the principles of preparation, development, and effective use of integrated units. Evaluation and reporting in terms of achievement of the curriculum objectives will also be emphasized.

314. PRACTICUM WITH THE MENTALLY RETARDED. *Six to eight hours credit.*

Prerequisites, Sp. Ed. 200 and 210. Individual observation and supervised practice in the education of the mentally handicapped. It is recommended that this course be taken over two consecutive quarters. Registration by permission of major adviser only.

PHYSICALLY HANDICAPPED**230. CARE AND PATHOLOGY OF THE PHYSICALLY HANDICAPPED.**
Three hours credit.

Prerequisite, Sp. Ed. 200. A course designed for teachers of physically handicapped children. Problems will be discussed in the following areas: vision, hearing, speech, orthopedics, epileptics and miscellaneous. Some time will be given to counseling of parents and organizing of parent groups.

231. PROBLEMS OF TEACHING THE PHYSICALLY HANDICAPPED.
Three hours credit.

Methods of teaching physically handicapped children; evaluation of techniques and teaching procedures with the various types of physically handicapped children; study of available material, curriculum planning, and aids used in the education of the physically handicapped child.

331. ADVANCED PROBLEMS IN TEACHING THE CEREBRAL PALSIED. *Three hours credit.*

Consideration of problems of child guidance, working with parents of cerebral palsied children and specific techniques helpful in education and training of cerebral palsied children. Emphasis upon team work approach to solving medical, educational, and therapeutic problems.

334. PRACTICUM WITH PHYSICALLY HANDICAPPED. *Six to eight hours credit.*

Prerequisites, Sp. Ed. 200, 230. Individual observation and supervised practice in the education of the physically handicapped. It is recommended that this course be taken over two consecutive quarters. Registration by permission of major adviser only.

BLIND**240. STRUCTURE AND FUNCTION OF THE EYE.** *Three hours credit.*
Causes, symptoms, treatment, and educational implications of visual defects and blindness; current research; eye health and vision testing; clinic and surgery observation.**241. SURVEY OF EDUCATION OF VISUALLY HANDICAPPED CHILDREN.** *Three hours credit.*

Survey of problems concerned with administration and organization of facilities to meet the needs of the visually handicapped child; parent counseling; educational and vocational guidance. Observation of existing programs required.

242. PRINCIPLES AND METHODS — PARTIALLY SEEING. *Three hours credit.*

Principles of preparation, selection, effective use of instructional materials in area of partially seeing child, problems of adaptation of school environment.

243. PRINCIPLES AND METHODS — BLIND (INTRODUCTION TO BRAILLE). *Three hours credit.*

General teaching methods as applied to needs of blind children. Introduction to Braille reading and writing; preparation of materials and use of curriculum aids suitable for this area.

343. ADVANCED BRAILLE. *Three hours credit.*

Development of skill in reading and writing Braille; methods and techniques of teaching grade two Braille, mathematical and Braille music codes.

344. PRACTICUM WITH THE BLIND. *Six to eight hours credit.*

Individual observation and supervised practice in the education of the blind and the partially sighted. It is recommended that this course be taken over two consecutive quarters. Registration by permission of major adviser only.

HARD OF HEARING AND DEAF**250. PATHOLOGY AND INTRODUCTION TO EDUCATION OF THE DEAF.** *Three hours credit.*

History and philosophy of education of the deaf. Structure of the ear and causes of deafness. Problems in organization, support, and maintenance of programs for deaf and hard of hearing children. Presentation of types of instruction given in various schools, the oral method, the combined method, the Rochester method, and the acoustic method.

251. METHODS OF TEACHING DEAF CHILDREN AT PRIMARY LEVELS. *Three hours credit.*

Prerequisite, Spec. Ed. 250. Teaching communication skills; speech development, language development, auditory training and beginning reading. Integration of the language arts with the entire primary curriculum including procedures used in teaching science, social studies, and arithmetic.

252. METHODS OF TEACHING DEAF PUPILS AT INTERMEDIATE AND ADVANCED LEVELS. *Three hours credit.*

Prerequisites, Spec. Ed. 250 and 251 or consent of instructor. The use of the communication skills in all content subject areas. Methods of teaching advanced reading skills. Improvement of speech and language usage. Development of an interest in recreational reading and reading of current literature. Means of preparing pupils to enter regular high schools or Gallaudet college.

253. AUDIOLOGY. *Three hours credit.*

Theory and practice in administering group and individual hearing tests with emphasis on public school program. Introduction to mechanics of hearing and causes of hearing impairment. Implications of hearing loss for referral, wearing of hearing aids, educational placement.

253a. PRACTICUM IN AUDIOLOGY. *One or two hours credit.*

Principles of and experience in the administration of hearing tests and their evaluation.

254. SPEECH READING. *Three hours credit.*

Prerequisite, Sp. 164 or Sp. 265. Speech reading theory and practice. Some educational problems of the speech reading teacher. Methods used for the instruction of children and adults. Correlation with auditory training, reading, and speech correction. Different approaches used with hard of hearing children and the deaf.

255. EDUCATION OF HARD OF HEARING CHILD. *Three hours credit.*

Sociologic, psychologic and economic implications of hearing loss. Survey of public school program of hearing conservation. Methods and practice of hearing conservation. Methods and practice of hearing therapy including lip-reading, auditory training, and speech improvement. Presentation of typical lesson plans at various levels and collection of source materials. Mechanics and use of hearing aids and other amplifying devices.

350. ADVANCED PROBLEMS IN TEACHING DEAF CHILDREN. *Three hours credit.*

Prerequisite, Spec. Ed. 251 and 255 or consent of instructor. Preparation of units of work in content subject areas. Expansion of vocabulary and language comprehension and usage. Curriculum planning. An opportunity will be given experienced teachers to work on specific problems.

351. SEMINAR IN AUDIOLOGICAL PROBLEMS. *Three hours credit.*

This course will analyze problems involving the fitting of hearing aids and adjustment of the individuals to them. It will also involve problems concerning necessary auditory training. Experience will be provided on an individual basis.

354. PRACTICUM WITH THE DEAF AND HARD OF HEARING. *Six to eight hours credit.*

Individual observation and supervised practice in the education of the deaf and hard-of-hearing. It is recommended that this course be taken over two consecutive quarters. Registration by permission of major adviser only.

SPEECH CORRECTION

§164. INTRODUCTION TO SPEECH CORRECTION. (Credit may be obtained in Speech or Special Education.) *Three hours credit.*

For description of this course, see page 160.

265. SPEECH PATHOLOGY. *Three hours credit.*

Prerequisite, Spec. Ed. 164. A consideration of disorders of articulation, phonation, rhythm, and symbolization with emphasis on methods and materials of re-education. Spec. Ed. 265a required as part of the course.

§265a. CLINICAL PRACTICE IN SPEECH CORRECTION. (Credit may be obtained in Speech or Special Education.) *Maximum of ten hours credit.*

For description of this course, see page 161.

§268. SPEECH CORRECTION IN THE CLASSROOM. (Credit may be obtained in Special Education or Speech.) *Four hours credit.*

This course is designed to aid the classroom teacher in evaluating speech difficulties on the elementary and secondary levels and offers techniques that may be used in the correction of minor speech problems.

367a,b,c,d,e,f. SEMINAR IN SPEECH PATHOLOGY. *Three hours credit each.*

A study in any one of the areas of speech or hearing pathology; (a) cerebral palsy, (b) cleft palate, (c) aphasia, (d) stuttering, (e) voice disorders, and (f) articulation disorders.

§370. THE PSYCHOLOGY OF SPEECH. (Credit may be obtained in Speech or Special Education.) *Four hours credit.*

For description of this course, see page 162.

§375. PHONETICS. (Credit may be obtained in Speech or Special Education.) (Summers only.) *Four hours credit.*

For description of this course, see page 162.

GIFTED

280. EDUCATION OF CHILDREN WITH SPECIAL ABILITIES. *Three hours credit.*

Basic organization of programs for the education of the gifted child; classification and testing; curriculum adjustments and principles of teaching the gifted; exploring creative activities; guidance and evaluation of student programs.

Division of Health and Physical Education

The Division of Health and Physical Education includes programs for both men and women. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (with teaching certificate)

Majors: Physical Education for Women, Physical Education for Men.

Minors: Physical Education (Secondary), Physical Education (Elementary), Health Education.

MASTER OF ARTS DEGREE (with teaching certificate)

Majors: Physical Education, Supervision of Physical Education, Health Education.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (with teaching certificate)

Area of Concentration: Health and Physical Education.

Supporting Area: Health and Physical Education.

All majors and minors in this division will earn academic credit in H.P.E. 61, Personal and Community Health.

PHYSICAL EDUCATION MAJOR FOR WOMEN

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 81 academic quarter hours in the Common Courses listed on pages 47-48, except the physical education activity courses. H.P.E. 80, 81, and 83 will be substituted for the six hours of physical education activity courses required in the common program. Education 150g,h will be substituted for Education 150b,c of the common program for all physical education majors.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 62	First Aid	2	2
H.P.E. 82	Techniques of Hockey and Soccer	2	2
H.P.E. 84	Techniques of Tennis and Softball	2	2
H.P.E. 85	Techniques of Tumbling	2	2
H.P.E. 90	Techniques in Folk Dance	2	2
H.P.E. 92	American Square and Social Dance	2	2
H.P.E. 93	Techniques in Contemporary Dance	2	2
H.P.E. 94	Problems in Dance Composition	2	2
H.P.E. 120a,b	Anatomy and Physiology	6	6
H.P.E. 129a,b,c	Teaching of Sports for Women	6	6

H.P.E.*	201	- -	Health Education in the Elementary School	
			<i>or</i>	
H.P.E.*	202	- -	Health Education in the Secondary School	- 4
H.P.E.	222	- -	Kinesiology	- - - - - 4
H.P.E.	226	- -	Tests and Measurements in Physical Education	- - - - - 3
H.P.E.	232	- -	Problems of Individual Gymnastics	- - - - - 3
H.P.E.	235	- -	Educational Interpretations of Health, Physical Education, and Recreation	- - - - - 3
H.P.E.	272	- -	Recreation Leadership	- - - - - 3
				48

*Students planning to teach in the elementary school will take H.P.E. 201; those planning to teach in the secondary school will take H.P.E. 202.

3. One minor of 27 quarter hours outside the Division of Health and Physical Education.

4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.

5. Electives may be used at the students' option and under advisement to complete teaching competencies in health education and driver education.

**PHYSICAL EDUCATION MAJOR FOR MEN
Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program :

1. 73 to 81 academic quarter hours in the Common Courses listed on pages 47-48, H.P.E. 70 and 71 will be substituted for four of the six hours of physical education activity courses required in the common program. The remaining two hours of the common requirement in this area will be selected with the assistance of the student's adviser.

Education 150g,h will be substituted for Education 150b,c of the common program for all physical education majors. In addition men majoring in this field will complete an additional methods course, either Education 150b,c or Education 150c, in a minor outside of the major division.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E.	62 - - First Aid	- - - - -	2 -
H.P.E.	73 - - Theory and Practice of Basketball	- - - - -	2 -
H.P.E.	74a - - Theory and Practice of Swimming	- - - - -	1 -
H.P.E.	74b - - Theory and Practice of Wrestling	- - - - -	1 -
H.P.E.	75a - - Theory and Practice of Track	- - - - -	1 -
H.P.E.	75b - - Theory and Practice of Baseball	- - - - -	1 -
H.P.E.	76 - - Theory and Practice of Football	- - - - -	2 -
H.P.E.	90 - - Techniques in Folk Dance	- - - - -	2 -
H.P.E.	92 - - American Square and Social Dance	- - - - -	2 -
H.P.E.	120a,b - - Anatomy and Physiology	- - - - -	6 -
H.P.E.	161 - - Coaching of Football	- - - - -	2 -
H.P.E.	162 - - Coaching of Basketball	- - - - -	2 -
H.P.E.	163 - - Coaching of Track and Field	- - - - -	2 -
H.P.E.	164 - - Coaching of Baseball	- - - - -	2 -
H.P.E.*	201 - - Health Education in the Elementary School		
	<i>or</i>		
H.P.E.*	202 - - Health Education in the Secondary School		4 -

H.P.E.	222	- -	Kinesiology	- - - - -	4
H.P.E.	226	- -	Tests and Measurements in Physical Education	- - - - -	3
H.P.E.	235	- -	Educational Interpretations of Health, Physical Education, and Recreation	- - -	3
H.P.E.	270	- -	Organization and Administration of Physical Education and Athletics	- - - -	3
H.P.E.	272	- -	Recreation Leadership	- - - - -	3
					48

*Students planning to teach in the elementary school will take H.P.E. 201; those planning to teach in the secondary school will take H.P.E. 202.

3. One minor of 27 quarter hours outside the Division of Health and Physical Education.
4. 24 to 32 quarter hours of free electives to complete the 180 quarter hours of academic credit for graduation.
5. Electives may be used at the students' option and under advisement to complete teaching competencies in health education and driver education.

Physical Education Minor for Women (Elementary Level)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 62	- - First Aid	- - - - -	2
H.P.E. 85	- - Techniques of Tumbling	- - - - -	2
Ed. 150g	- - Methods and Observation of Teaching Physical Education in the Elementary School	- - - - -	3
H.P.E. 90	- - Techniques in Folk Dance	- - - - -	2
H.P.E. 201	- - Health Education in the Elementary School	- - - - -	4
H.P.E. 272	- - Recreation Leadership	- - - - -	3
Electives to be planned with minor adviser			11

For a total of 27

Physical Education Minor for Women (Secondary Level)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours</i>	<i>Credit</i>
H.P.E. 25	- - Fundamentals of Body Movement	- - - - -	1
H.P.E. 62	- - First Aid	- - - - -	2
H.P.E. 80	- - Techniques of Individual Sports	- - - - -	2
H.P.E. 81	- - Techniques of Volleyball and Basketball	- - - - -	2
H.P.E. 82	- - Techniques of Hockey and Soccer	- - - - -	2
H.P.E. 84	- - Techniques of Tennis and Softball	- - - - -	
<i>or</i>			
H.P.E. 85	- - Techniques of Tumbling	- - - - -	
<i>or</i>			
H.P.E. 129b	- - Teaching of Sports for Women	- - - - -	2
H.P.E. 90	- - Techniques in Folk Dance	- - - - -	2
H.P.E. 92	- - American Square and Social Dance	- - - - -	2
H.P.E. 202	- - Health Education in the Secondary School	- - - - -	4
H.P.E. 272	- - Recreation Leadership	- - - - -	3
Ed. 150h	- - Methods and Observation of Teaching Physical Education in the Secondary School (Women)	- - - - -	2
Electives to be planned with minor adviser			3

Physical Education Minor for Men (Elementary Level)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
H.P.E. 62	First Aid	2
H.P.E. 70	Theory and Practice of Gymnastics and Matwork	2
Ed. 150g	Methods and Observation of Teaching Physical Education in the Elementary School	3
H.P.E. 90	Techniques in Folk Dance	2
H.P.E. 201	Health Education in the Elementary School	4
H.P.E. 272	Recreation Leadership	3
Electives to be planned with minor adviser		11

For a total of 27

Physical Education Minor for Men (Secondary Level)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
H.P.E. 62	First Aid	2
H.P.E. 73	Theory and Practice of Basketball	2
H.P.E. 75a	Theory and Practice of Track	1
H.P.E. 75b	Theory and Practice of Baseball	1
H.P.E. 76	Theory and Practice of Football	2
H.P.E. 161	Coaching of Football	2
H.P.E. 162	Coaching of Basketball	2
H.P.E. 202	Health Education in the Secondary School	4
H.P.E. 270	Organization and Administration of Physical Education and Athletics	3
H.P.E. 272	Recreation Leadership	3
Ed. 150h	Methods and Observation of Teaching Physical Education in the Secondary School (Men)	2
Electives to be planned with minor adviser		3

27

Health Education Minor (Men and Women)

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
H.P.E. 98	Elementary Nutrition	3
<i>or</i>		
H.P.E. 209	New Trends in Nutrition	4
H.P.E. 201	Health Education in the Elementary School	
<i>or</i>		
H.P.E. 202	Health Education in the Secondary School	4
H.P.E. 208	Community Health Problems	4
H.P.E. 213	Health Counseling and Appraisal	2
H.P.E. 271	Safety Education	3
H.P.E. 285	Mental Hygiene and Emotional Adjustment	3
Zool. 216	Physiology of Narcotics and Stimulants	3
<i>and/or</i>		
Biol. 232	Genetics and Eugenics	2
Electives to be planned with minor adviser		3 to 6

For a total of 27

Physical Education Activity Program for Women — A total of six quarters of physical education activity courses is required. Courses meeting these requirements are numbered from 1 to 60 inclusive. Courses may be repeated only with the approval of divisional faculty members.

It is recommended that women students in earning their first three credits in this area enroll for one course in dance, one group sport, and one individual activity. After the first three credits are earned, students may register for any one-hour course not previously taken, for a total of six hours credit. Credit may be earned in only one course each quarter. It is recommended that this requirement be met during the first portion of the undergraduate program.

Women students registered for physical education activity courses are required to obtain a locker padlock in the College Bookstore. Combinations for padlocks may be obtained in Gunter Hall, Room 109.

Women may purchase regulation gymnasium suits from the College Bookstore. These suits are required.

Medical excuses for exemption from all or part of the physical education activity requirement of the common program are issued only by the Department of Student Health Services.

Physical Education Activity Program for Men — A total of six quarters of physical education activity courses is required. Courses meeting these requirements are numbered from 1 to 60 inclusive. Courses may be repeated only with the approval of divisional faculty members.

It is recommended that men students in earning their first three credits in this area enroll for one course in dance, one team sport, and one individual activity. Courses numbered 1, 2 and 3 vary according to available facilities, but generally have a program of both team and individual sports. After the first three credits are earned, students may register for any one-hour course not previously taken, for a total of six hours credit. Credit may be earned in only one course each quarter. It is recommended that this requirement be met during the first portion of the undergraduate program.

Men students registered for physical education activity courses will be issued lockers, locks, and certain items of equipment from the Men's Equipment Room in the basement of Gunter Hall. A cash deposit of \$5 is required prior to any such issue. This deposit is refundable upon return of all issued items at the conclusion of the quarter or program.

Medical excuses for exemption from all or part of the physical education activity requirement of the common program are issued only by the Department of Student Health Services.

Description of Courses

PHYSICAL EDUCATION ACTIVITY COURSES

These courses are numbered from 1 to 61 inclusive with courses numbered from 1 to 60 meeting the Physical Education activity requirement of the Common Course program. H.P.E. 61 — Personal and Community Health is an academic requirement of the Common Course program (pp. 47-48). Special advisement and detailed mechanics of the Activity Program are described in the preceding section of this catalog.

1. FALL SPORTS. *One hour credit.*
Seasonal program. Advised for all first-year men students.
2. WINTER SPORTS. *One hour credit.*
Seasonal program. Advised for all first-year men students.
3. SPRING SPORTS. *One hour credit.*
Seasonal program. Advised for all first-year men students.
5. TAP DANCE. *One hour credit.*
- 6a. BEGINNING CONTEMPORARY DANCE. *One hour credit.*
- 6b. INTERMEDIATE CONTEMPORARY DANCE. *One hour credit.*
Prerequisite, H.P.E. 6a.
- 6c. ADVANCED CONTEMPORARY DANCE. *One hour credit.*
Prerequisite, H.P.E. 6a or 6b or permission of instructor. Advanced analysis and practice of axial and locomotor movement.
7. FOLK DANCE. *One hour credit.*
8. BEGINNING SOCIAL DANCE. *One hour credit.*
9. AMERICAN SQUARE AND COUPLE DANCES. *One hour credit.*
10. FIELD SPORTS. *One hour credit.*
11. SOFTBALL. *One hour credit.*
14. WRESTLING. *One hour credit.*
15. VOLLEYBALL. *One hour credit.*
16. SWIMMING. *One hour credit.*
- 16a. BEGINNING SWIMMING. *One hour credit.*
- 16b. INTERMEDIATE SWIMMING. *One hour credit.*
Prerequisite, 16a or beginner's test or ability to swim in deep water.
- 16c. ADVANCED SWIMMING. *One hour credit.*
Prerequisite, 16b or intermediate test of knowledge of fundamental strokes.
18. BASKETBALL. *One hour credit.*
19. INDIVIDUAL SPORTS. *One hour credit.*
20. BEGINNING BOWLING. *One hour credit.*
A course in the fundamentals of bowling open to both men and women.
21. FENCING. *One hour credit.*
- 22a. BEGINNING TUMBLING. *One hour credit.*
- 22b. ADVANCED TUMBLING. *One hour credit.*
Prerequisite, H.P.E. 22a.
- 22c. GYMNASTICS. *One hour credit.*
23. TENNIS. *One hour credit.*
25. FUNDAMENTALS OF BODY MOVEMENT. *One hour credit.*
Individual analysis of fundamental body movement and postural needs with practice in activities to improve both.
- 45a. FRESHMAN FOOTBALL: 45b. VARSITY FOOTBALL:
45c. SPRING FOOTBALL. *One hour credit each.*
- 46a. FRESHMAN BASKETBALL: 46b. VARSITY BASKETBALL.
One hour credit each.
Prerequisite, permission of instructor.
- 47a. FRESHMAN WRESTLING: 47b. VARSITY WRESTLING. *One hour credit each.*
- 48a. FRESHMAN GYMNASTICS: 48b. VARSITY GYMNASTICS.
One hour credit each.

49a. FRESHMAN SWIMMING: **49b.** VARSITY SWIMMING. *One hour credit each.*

52a. FRESHMAN BASEBALL: **52b.** VARSITY BASEBALL. *One hour credit each.*

Prerequisite, permission of instructor.

53a. FRESHMAN TRACK: **53b.** VARSITY TRACK: **53c.** CROSS COUNTRY. *One hour credit each.*

54a. FRESHMAN TENNIS: **54b.** VARSITY TENNIS. *One hour credit each.*

Prerequisite, permission of instructor.

61. PERSONAL AND COMMUNITY HEALTH. *Five hours credit.*

Designed to develop the understandings, attitudes, and practices which contribute to better individual and group health. Emphasis is placed upon the major health and safety problems of the college years and early adulthood.

SPECIAL CERTIFICATION COURSES

62. FIRST AID. *Two hours credit.*

63. ADVANCED FIRST AID. *One hour credit.*
Prerequisite, H.P.E. 62.

64. INSTRUCTOR'S COURSE IN FIRST AID. *One hour credit.*
Prerequisite, H.P.E. 63.

65. SENIOR LIFE SAVING. *One hour credit.*

Prerequisite, ability to pass the preliminary swimming requirements.

66. WATER SAFETY INSTRUCTOR'S COURSE. *One hour credit.*
Prerequisite, H.P.E. 65.

Driver Education: The Colorado State Department of Education requires a total of 18 quarter hours of preparation in this field: Nine hours are in HPE 62 First Aid, HPE 271 Safety Education, and HPE 274 Methods and Materials in Driver Education. The remaining 9 hours may be selected from a maximum of 3 hours each in Audio-Visual Education, Physical Science, Physical Education, and Psychology.

PROFESSIONAL COURSES FOR DIVISIONAL MAJORS AND MINORS

Courses numbered 70 and higher are intended primarily for the professional preparation of degree candidates completing a major or a minor in the various programs of the division. These programs are listed on page 131.

h50. HONORS SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

70. THEORY AND PRACTICE OF GYMNASTICS AND TUMBLING (Men). *Two hours credit.*

Fundamental skills on parallel bars, rings, side horse, horizontal bar, trampoline, and mats.

71. THEORY AND PRACTICE OF MINOR SPORTS (Men). *Two hours credit.*

Fundamental skill techniques in minor sports.

73. THEORY AND PRACTICE OF BASKETBALL (Men). *Two hours credit.*

Fundamental skill techniques in basketball.

74a. THEORY AND PRACTICE OF SWIMMING (Men). *One hour credit.*
Prerequisite, ability to swim. Fundamental skill techniques in swimming.

74b. THEORY AND PRACTICE OF WRESTLING. (Men). *One hour credit.*

Fundamental skill techniques of teaching wrestling.

75a. THEORY AND PRACTICE OF TRACK (Men). *One hour credit.*

Fundamental skill techniques in track coaching, covering the correct form in starting, running, field events and jumping.

75b. THEORY AND PRACTICE OF BASEBALL (Men). *One hour credit.*

Fundamental skill techniques in baseball.

76. THEORY AND PRACTICE OF FOOTBALL (Men). *Two hours credit.*

Fundamental skill techniques in football.

77. ORIENTATION IN PHYSICAL EDUCATION. *Two hours credit.*

Designed to orient freshman majors with the breadth, scope, and nature of the professional program in physical education.

80. TECHNIQUES OF INDIVIDUAL SPORTS (Women). *Two hours credit.*

Fundamental skills, strategies and rules of individual sports.

81. TECHNIQUES OF VOLLEYBALL AND BASKETBALL (Women). *Two hours credit.*

Fundamental skills, team play, and rules.

82. TECHNIQUES OF HOCKEY AND SOCCER (Women). *Two hours credit.*

Fundamental skills, team play, and rules.

83. TECHNIQUES OF SWIMMING (Women). *Two hours credit.*

Prerequisites, knowledge of strokes, intermediate swimmer's test, or H.P.E. 16b. The teaching of swimming, including the techniques of diving and advanced and synchronized swimming.

84. TECHNIQUES OF TENNIS AND SOFTBALL (Women). *Two hours credit.*

Fundamental skills, team play, and rules.

85. TECHNIQUES OF TUMBLING (Women). *Two hours credit.*

Fundamental skills and techniques in tumbling and stunts. Practical experience in organizing tumbling games, contests, meets and demonstrations.

88. PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL. *One hour credit.*

Prerequisite, sophomore standing. A foundation course required during initial enrollment in 88a,b,c series, preferably with 88a. Designed for, required of, and restricted to majors and minors in elementary education and physical education minors (elementary level). Content deals with basic principles recognized in planning physical education programs for elementary school children.

88a. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL. *One hour credit.*

Prerequisite, sophomore standing. Designed for, required of and restricted to majors and minors in elementary education and physical education minors (elementary level). Emphasis given to the physical education program for elementary school children during the fall months.

88b. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL. *One hour credit.*

Prerequisite, sophomore standing. Designed for, required of and restricted to majors and minors in elementary education and physical education minors (elementary level). Emphasis given to the physical education program for elementary school children during the winter months.

88c. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL. *One hour credit.*

Prerequisite, sophomore standing. Designed for, required of and restricted to majors and minors in elementary education and physical education minors (elementary level). Emphasis given to the physical education program for elementary school children during the spring months.

90. TECHNIQUES IN FOLK DANCE. *Two hours credit.*

A presentation of the materials, methods, and techniques necessary for teaching folk dances.

92. AMERICAN SQUARE AND SOCIAL DANCE. *Two hours credit.*

Fundamental skills, methods, and materials necessary in the teaching of square and social dance. Practical experience in organizing and conducting square dances.

93. TECHNIQUES IN CONTEMPORARY DANCE. *Two hours credit.*

The analysis and techniques of movement in relation to the aspects of time, space, and force.

94. PROBLEMS IN DANCE COMPOSITION. *Two hours credit.*

Problems in dance composition includes rhythmic analysis and accompaniment for dance. Laboratory experience in various approaches to dance composition comprise the fundamental approach for the course.

§98. ELEMENTARY NUTRITION. (Credit may be obtained in Home Economics or Health and Physical Education.) *Three hours credit.*

For description of this course, see page 80.

120a,b. HUMAN ANATOMY AND PHYSIOLOGY. *Three hours credit each.*

The structure and function of the cell structure of the body and the circulatory, respiratory, digestive, excretory, endocrine, reproductive, and nervous systems.

129a,b,c. TEACHING OF SPORTS FOR WOMEN. *Two hours credit each.*

Prerequisites, H.P.E. 81, 82, 84. A consideration of the basic techniques of fall, winter and spring sports, emphasizing teaching procedures.

130a,b,c. OFFICIATING GIRLS' SPORTS. *One hour credit each.*

Prerequisite, junior standing or permission of instructor. A course designed to give a background and understanding of the rules and techniques of officiating various sports found in the women's program. Official's ratings will be given in volleyball, basketball, softball and others.

161. COACHING OF FOOTBALL. *Two hours credit.*

Prerequisite, H.P.E. 76, or 45a, or 45b, or permission of the instructor. The technique and strategy of coaching football, with emphasis upon type of formations, defense, play series, rules, and football coaching in general.

162. COACHING OF BASKETBALL. *Two hours credit.*

Prerequisite, H.P.E. 73, or 46a, or 46b, or permission of the instructor. Theory and practice in scouting, charting, scoring, timing, and officiating. Principles of successful modern offensive and defensive play. Procedures in developing and utilizing playing personnel.

163. COACHING OF TRACK AND FIELD. *Two hours credit.*

Prerequisite, H.P.E. 75a, or 53a, or 53b, or permission of the instructor. A study of the techniques of coaching the various events in track and field, the rules, and the methods of conducting track meets.

164. COACHING OF BASEBALL. *Two hours credit.*

Prerequisite, H.P.E. 75b, or 52a, or 52b, or permission of the instructor. Techniques and procedures in developing individual and team play. Defensive baseball: pitching, catching, infielding, outfielding, strategy. Offensive baseball: batting, base-running, strategy.

188. PHYSICAL EDUCATION ACTIVITIES FOR THE ELEMENTARY SCHOOL. (Summers only.) *Four hours credit.*

Designed to furnish the elementary teacher with materials and laboratory

experiences in physical education activities for the elementary school program or activity period. This course may be substituted for H.P.E. 88, 88a,b,c.

201. HEALTH EDUCATION IN THE ELEMENTARY SCHOOL. *Four hours credit.*

Prerequisite, H.P.E. 61. A course designed to give the prospective elementary teacher a foundation in school health education, including methods and materials for health instruction, the promotion of healthful school living, and an understanding of the health service program.

202. HEALTH EDUCATION IN THE SECONDARY SCHOOL. *Four hours credit.*

Prerequisite, H.P.E. 61. Designed to give the prospective secondary teacher a foundation in school health education, including methods and materials for health instruction, the promotion of healthful school living, and an understanding of the health service program.

203. HEALTH EDUCATION WORKSHOP. (Summers only.) *Three hours credit.*

Prerequisites, upper division or graduate status and permission of the instructor. The workshop will be concerned with the practical problems of the school health programs: health instruction, medical and nursing services, nutrition, school lunch programs, safety, mental hygiene, and environmental sanitation.

204. HEALTH PROBLEMS OF THE EXCEPTIONAL CHILD. *Three hours credit.*

Designed primarily for health majors and minors to familiarize them with the causes, symptoms, treatment, and prevention of diseases producing physical handicaps. Areas to be discussed are visual and auditory disorders, orthopedic defects, special health problems, and speech handicaps.

205. FAMILY HEALTH PROBLEMS. *Three hours credit.*

The relationship of health to marriage is presented. Some of the problems encountered in marriage which would be typical of this course are: health as a qualifying factor for marriage; maternal and child care; accident prevention in the home; and medical care plans for the family.

208. COMMUNITY HEALTH PROBLEMS. *Four hours credit.*

Designed to acquaint prospective teachers with health problems in a community and to make them aware of community agencies which cope with these problems.

§209. NEW TRENDS IN NUTRITION. (Credit may be obtained in Home Economics or Health and Physical Education.) *Four hours credit.*

For description of this course, see page 81.

213. HEALTH COUNSELING AND APPRAISAL. *Two hours credit.*

Prerequisite, H.P.E. 201 and 202. Designed to give the prospective teacher an insight into the purpose of health appraisals on school children, the use of the health records in health counseling, techniques in observing for deviations from normal, counseling with pupils, parents, and teachers, and how to make referrals to private and public agencies.

215. PROBLEMS IN FITNESS IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Three hours credit.*

First in a series of three workshops in this important area with emphasis in this beginning course centered on surveying the problem of fitness of American youth in the areas of health and physical education. Subsequent workshops will consider the general problem with emphasis on program (H.P.E. 216) and evaluation (H.P.E. 217).

216. PROGRAMS IN FITNESS IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Three hours credit.*

Second in a series of three workshops with emphasis in this course centered on program planning. Materials developed in H.P.E. 215 will be used, although completion of H.P.E. 215 is not a prerequisite to H.P.E. 216 or H.P.E. 217.

217. EVALUATION IN FITNESS IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Three hours credit.*

Third in a series of three workshops with emphasis in this course centered on evaluation. Materials developed in H.P.E. 215 (Problems) and H.P.E. 216 (Program) will be used although neither is a prerequisite to H.P.E. 217.

222. KINESIOLOGY. *Four hours credit.*

Detailed work on the skeletal and muscular systems with direct application to activity and posture. Recommended for people who wish to enter physio-therapy.

226. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION. *Three or four hours credit.*

Prerequisite, senior standing or permission of instructor. Designed to give the student a foundation in techniques of evaluation, including elementary statistical procedures, the preparation and administration of skill and written tests, and the use of other evaluative materials in the field.

230. CAMP LEADERSHIP. *Three hours credit.*

Offered during Pre-Session at a mountain campsite. A functional course designed to prepare college students for a probable leadership service in summer camps.

232. PROBLEMS OF INDIVIDUAL GYMNASTICS. *Three hours credit.*

Prerequisites, H.P.E. 120a,b and 122. The science of muscular action in relation to fundamental movement and to postural defects and their treatment.

235. EDUCATIONAL INTERPRETATIONS OF HEALTH, PHYSICAL EDUCATION, AND RECREATION. *Three hours credit.*

Prerequisites, H.P.E. 120a, b; senior or graduate standing. A foundational approach to interpretations and objectives of physical education, health education, and recreation in general education. Designed to assist the mature professional major in developing a sound philosophic background for continued growth in the professional field.

255. CONTEMPORARY DANCE TECHNIQUES. (Summers only.) *Four hours credit.*

Prerequisite, H.P.E. 94 or permission of instructor. Basic work and movement analysis, including laboratory work in composition.

260. SCIENTIFIC PRINCIPLES OF COACHING. *Four hours credit.*

Prerequisite, senior or graduate standing. Primarily for the athletic coach to assist him in teaching and coaching the usual major sports of the school competitive sports program. Designed to establish on a sound scientific basis the mechanical principles involved in developing techniques for sport competition.

261. MECHANICAL PRINCIPLES OF TEACHING ACTIVITIES IN PHYSICAL EDUCATION. (Summers only.) *Four hours credit.*

For physical educators, including both men and women, and designed to assist them in teaching the activities and rhythms of the school physical education program.

264. SPORTS OFFICIATING FOR MEN. *Four hours credit.*

Designed for coaches, administrators, and officials. Considers general principles and philosophy of officiating as well as a study of the mechanics of officiating the sports for men in the school program.

265a,b. ADVANCED TECHNIQUES IN TEACHING MAJOR SPORTS TO MEN. *Two hours credit each.*

Prerequisite, teaching or coaching experience. Designed to assist the in-service teacher of major sports for men with special problems in the field of (a) football, (b) basketball, including organization, strategy, personnel.

266a,b. ADVANCED TECHNIQUES IN TEACHING MINOR SPORTS TO MEN. *Two hours credit each.*

Prerequisite, teaching or coaching experience. Designed to assist the in-service teacher of minor sports for men with special problems in the field of (a) wrestling, (b) track, including organization, strategy, personnel.

267a,b,c. ADVANCED TECHNIQUES IN TEACHING SPORTS TO GIRLS. (Summers only.) *Four hours credit each.*

Prerequisite, Ed. 150h or teaching experience. Designed to assist the high school or college teacher with special problems in teaching and officiating, (a) gymnastic activities, (b) individual sports, (c) team sports.

268. THE ADMINISTRATION OF THE SCHOOL RECREATION PROGRAM. *Four hours credit.*

Designed to cover all aspects of the school recreation program including before-school, noon-hour, after-school, evening, and week-end activities. The course emphasizes the administrative and supervisory problems involved in a total school program.

269. ORGANIZATION AND ADMINISTRATION OF A PHYSICAL EDUCATION PROGRAM FOR GIRLS. *Four hours credit.*

The organizational and administrative aspects of the girls' physical education program.

270. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS. *Three hours credit.*

The organizational and administrative problems of physical education and athletics on the high school level: aims and objectives, management of athletics, the physical plant, intramurals, and administrative policies.

271. SAFETY EDUCATION. *Three hours credit.*

Comprehensive course for teachers and administrators in public schools.

272. RECREATION LEADERSHIP. *Three hours credit.*

Readings, reports and projects covering the philosophy, methods, and materials for the recreation leader.

§273. WORKSHOP IN OUTDOOR EDUCATION. (Credit may be obtained in Health and Physical Education or Education.) (Summers only.) *Three hours credit.*

An introductory course of a functional nature designed to acquaint educators in any area with the concepts of outdoor education. The application of classroom subjects to direct experiences in the out-of-doors will be stressed. Offered during Pre-Session at a mountain lodge. Instructional staff will be inter-divisional along with specialists from outside agencies.

§274. METHODS AND MATERIALS IN DRIVER EDUCATION. (Credit may be obtained in Health and Physical Education or Education.) *Four hours credit.*

Designed to give prospective teachers some experiences in methods, techniques and materials necessary to develop a driver education program. The course is divided into two parts, classroom and behind the wheel experiences. This course requires laboratory time in which prospective teachers of driver education practice driving.

280. CARE OF ATHLETIC INJURIES. *Four hours credit.*

Prerequisites, H.P.E. 62, 120a,b, and 222. Laboratory required. Intensive course in care and treatment of athletic injuries with time devoted to each specific injury. The etiology, pathology, signs and symptoms, treatment, and adapted activities will be given for the major injuries.

§285. MENTAL HYGIENE AND EMOTIONAL ADJUSTMENT. (Credit may be obtained in Educational Psychology and Guidance, Social Studies, or Health and Physical Education.) *Three hours credit.*

For description of this course, see page 121.

288. HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. (Summers only.) *Four hours credit.*

Designed for the health and physical education major utilizing both laboratory and lecture techniques in developing a functional program of health and physical education in the elementary school.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and techniques of research in the area of the graduate major. This course is required of all first-quarter graduate students who intend to receive the degree of Master of Arts.

304. SCHOOL HEALTH ADMINISTRATION. *Four hours credit.*

Designed to acquaint administrators, supervisors, and health educators with the planning and organizational aspects of the total school health program. Special attention is given to administrative and supervisory problems in health and safety instruction, health services and guidance, and healthful school living.

312. EVALUATION IN HEALTH AND PHYSICAL EDUCATION. *Four hours credit.*

Prerequisite, H.P.E. 226, or equivalent. Designed to give the graduate student a sound background in the tools, techniques, and methods of evaluation. Special emphasis is given to the construction of both written and activity tests as well as the use of other evaluative tools.

322. INDIVIDUAL STUDIES IN HEALTH AND PHYSICAL EDUCATION. *One to four hours credit for one problem; a maximum of eight hours credit permitted.*

The purpose of this course is to provide for independent study, particularly in special phases of a field of specialization not provided for in a formal class course. Paper required.

325. PHYSIOLOGY OF EXERCISE. *Four hours credit.*

Prerequisite, H.P.E. 120a,b. Effect of muscular activities on the various systems and organs of the body.

336. THE SCIENCE OF BODY MECHANICS. *Four hours credit.*

A course designed to analyze movement of various activities and the recognition of and exercises for remedial defects. Emphasis will be placed on problems of individual students in relationship to home or school situations.

340. CURRICULUM IN HEALTH AND PHYSICAL EDUCATION. *Four hours credit.*

The principles underlying curriculum construction, the various elements making up a curriculum, and experience in building a curriculum in either the field of health or physical education.

344. SUPERVISION OF PHYSICAL EDUCATION. *Four hours credit.*

Concepts, principles, organization, and techniques of supervision for use by superintendents, supervisors, and teachers in the construction or supervision of a physical education program.

355. DANCE HISTORY AND PHILOSOPHY. (Summers only.) *Four hours credit.*

Prerequisites, H.P.E. 93 and 94, or permission of instructor. Designed to study the history and development of dance as it is culturally determined and the philosophy influencing dance in education.

356. WORKSHOP IN CONTEMPORARY DANCE. (Summers only.) *Four hours credit.*

Prerequisite, permission of instructor. Problems connected with the staging of dance performances.

387. ORGANIZATION AND ADMINISTRATION OF COMMUNITY RECREATION. *Four hours credit.*

The course is concerned with the organization and administration of the community recreation program. Eleven essential areas of this subject are studied: fact-finding, survey, legal aspects, municipal organization, department organization, financing, records and reports, publicity, public relations, leadership, program.

399. THESIS. *Eight hours credit.*

401. ANALYSIS OF RESEARCH AND LITERATURE IN HEALTH AND PHYSICAL EDUCATION. *Four hours credit.*

Appraisal of research and significant literature in health and physical education for the purpose of orienting the student to possible areas of research and developing understanding and appreciation of writings in the field.

403. RESEARCH SEMINAR IN HEALTH AND PHYSICAL EDUCATION. *Four hours credit.*

Prerequisites, H.P.E. 300 and 401, or equivalent. Designed to serve the needs of doctoral candidates planning to conduct research in health education, physical education, or allied areas. Presents techniques and procedures in research and aids in the development of the required research outline for the doctoral degree.

404. FOUNDATIONS FOR THE CURRICULUM IN HEALTH AND PHYSICAL EDUCATION. (Summers only.) *Four hours credit.*

A critical study and evaluation of the curriculum in health and physical education in light of basic principles and the current forces affecting education.

405. HUMAN GROWTH AND DEVELOPMENT. (Summers only.) *Four hours credit.*

A study of the organic, structural, and social aspects of human growth and development as they affect teaching and learning in physical and health education and recreation.

406. ADMINISTRATIVE INTERRELATIONSHIPS IN HEALTH, PHYSICAL EDUCATION AND RECREATION. (Summers only.) *Four hours credit.*

The purpose of this course is to develop a better understanding of and skill in the administrative process as applied to the numerous interrelationships involved in the operation of programs of health, physical education and recreation.

Division of the Humanities

The Division of the Humanities includes the fields of English, Foreign Languages, Speech, and Drama. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (with teaching certificate)

Majors: English, English and Speech, Foreign Languages, Speech, Drama.

Minors: English, English and Speech, Foreign Language, Speech, Drama.

BACHELOR OF ARTS DEGREE (liberal arts)

Majors: English, Foreign Languages, Speech, Drama.

Minors: English, Foreign Language, Speech, Drama.

MASTER OF ARTS DEGREE (with teaching certificate)

Majors: English, a combined program in Speech and Drama.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

ENGLISH MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Eng. 4b	Elementary English Composition	4
Eng. 50	Shakespeare	3
Four of the following courses:		12-13
Eng. 49	English Poetry from Chaucer to Milton	3
Eng. 51	The Restoration and Eighteenth Century	3
Eng. 52	The Romantic Movement	3
Eng. 53	Victorian Prose and Poetry	3
Eng. 54	Contemporary English and American Literature	4
Eng. 60	American Literature to the Civil War	4
Eng. 61	American Literature Since the Civil War	4
Eng. 110a,b or c	Creative Writing	2
Eng. 209	Advanced Grammar and Syntax	2
Eng. 210	Advanced Expository Writing	3
Eng. 211	The English Language	4
Eng. 226	Literature and Materials in the Secondary School	4
Eng. 257	History of Ideas in English Literature	3
	Electives	3

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3. At least one minor of 27 quarter hours.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

English Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Eng. 4b or 210	Elementary English Composition, Advanced Expository Writing	3 or 4
Eng. 58a	Survey of English Literature (700-1800)	4
Eng. 58b	Survey of English Literature (1800-the present)	4
Eng. 58c	Survey of American Literature	4
Eng. 226	Literature and Materials in the Secondary School	4
Electives in English		7 or 8
		27

ENGLISH MAJOR**Bachelor of Arts Degree (Liberal Arts)**

The following program is required: (1) Common Courses listed on page 48, (2) The English requirements listed for the major on page 145 with the exception that substitutions may be made with the consent of the adviser; (3) One minor; (4) Electives to complete requirements for graduation.

English Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Eng. 4b	Elementary English Composition	3
	<i>or</i>	
Eng. 210	Advanced Expository Writing	4
Eng. 58a	Survey of English Literature (700-1800)	4
Eng. 58b	Survey of English Literature (1800-the present)	4
Eng. 58c	Survey of American Literature	4
Eng. 211	The English Language	4
Electives in English		7 or 8
		27

ENGLISH AND SPEECH MAJOR (Junior High School Level)**Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program.

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Eng. 10	Freshman Literature	4
Eng. 49	English Poetry from Chaucer to Milton	3
Eng. 50	Shakespeare	3
Eng. 51	The Restoration and Eighteenth Century	3
Eng. 52	The Romantic Movement	3
Eng. 53	Victorian Prose and Poetry	3
Eng. 54	Contemporary English and American Literature	4
Eng. 60	American Literature to the Civil War	4
Eng. 61	American Literature Since the Civil War	4
Eng. 110a,b, or c	Creative Writing	2

Eng.	227	- -	Literature and Materials in the Junior High School	- - - - -	5
Eng.	228	- -	The Teaching of Reading in the Junior High School	- - - - -	5
Sp.	124	- -	Teaching Speech in Junior High School	- - - - -	4
			Elective	- - - - -	1

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3. At least one minor of 27 quarter hours.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

LANGUAGE AND SPEECH MINOR (Junior High School Level)

Eng.	4b	- -	Elementary English Composition	- - - - -	4
Eng.	203	- -	New Approaches to the Teaching of Grammar	- - - - -	3
Eng.	209	- -	Advanced Grammar and Syntax	- - - - -	2
Eng.	210	- -	Advanced Expository Writing	- - - - -	3
Eng.	211	- -	The English Language	- - - - -	4
Sp.	123	- -	Basic Speech and Oral Reading	- - - - -	5
Sp.	130	- -	Drama in the Junior High School	- - - - -	5
			Elective	- - - - -	1

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Description of Courses

HUMANITIES

1,2,3. FIRST, SECOND AND THIRD COURSE IN THE HUMANITIES. *Three hours credit each.*

A systematic historical study of the great philosophic ideas from Greek times to the present. These ideas are developed from a study of the literature, painting, sculpture, architecture and music of the periods studied. This course is further designed to develop active creative interests in the arts.

1a, 2a, 3a. CREATIVE EXPRESSION IN THE HUMANITIES. *Two hours credit each.*

A laboratory experience in the creative arts to provide the individual student an opportunity to explore his own creative potentialities, particularly those students who have interest but no previous experience. The laboratory method is employed with sections in fine arts, drama, music, dance and writing by arrangement. Maximum, six hours.

h50. HONORS SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

240. ADVANCED COURSE IN THE HUMANITIES. *Four hours credit.* Prerequisites, Hum. 1, 2, 3, or equivalent. The study of a specific great literary work in its setting of history, philosophic concepts, and contemporary arts. Offered only when requested by five or more students.

330. GRADUATE READINGS COURSE IN THE HUMANITIES. *Four hours credit.*

This course is designed to acquaint graduate students with some of the major concepts, terms, and creative figures in the fields of literature, art, painting, and music.

ENGLISH

4a. ELEMENTARY ENGLISH COMPOSITION. *Five hours credit.*

A course in elementary expository writing, with instruction in functional grammar, paragraph organization, and development of coherent essays.

4b. ELEMENTARY ENGLISH COMPOSITION. *Four hours credit.* Continuation of Eng. 4a with special emphasis on matters of style.

10. FRESHMAN LITERATURE. *Four hours credit.*

An introductory course in literature, designed to acquaint students with literary terminology and to introduce students to outstanding examples of various types of literature: poetry, short story, essay, novel, and drama. Emphasis will be placed on the technique of reading and explicating works of literature.

49. ENGLISH POETRY FROM CHAUCER TO MILTON. *Three hours credit.*

Prerequisite, Eng. 10. A study of the poetry of England from the end of the Middle Ages through the Renaissance, including such authors as Chaucer, The Pearl Poet, Spenser, Sidney, Marlowe, Johnson, Shakespeare, Donne, Herbert, Herrick, and Milton.

50. SHAKESPEARE. *Three hours credit.*

Prerequisite, Eng. 10. A basic Shakespeare course for the English major with a special stress on plays that are usually taught in the public schools.

51. THE RESTORATION AND EIGHTEENTH CENTURY. *Three hours credit.*

Prerequisite, Eng. 10. A study of major writers of the period with attention to their influence on subsequent ideas and literary forms.

52. THE ROMANTIC MOVEMENT. *Three hours credit.*

Prerequisite, Eng. 10. The development of English Romanticism; its social and philosophical backgrounds. Wordsworth, Coleridge, Byron, Shelley, and Keats; with some consideration of the essayists and minor poets.

53. VICTORIAN PROSE AND POETRY. *Three hours credit.*

Prerequisite, Eng. 10. A study of the poems and more important prose works of the major Victorian writers, and of their relation to the life of the times.

54. CONTEMPORARY ENGLISH AND AMERICAN LITERATURE. *Four hours credit.*

Prerequisite, Eng. 10. A study of the development of English and American poetry, fiction, and drama since 1920, showing the relationships between the two literatures in a period when the interaction becomes extensive.

58a. SURVEY OF ENGLISH LITERATURE (700-1800). *Four hours credit.*

Comprehensive readings in English literature following its development from Beowulf to the Romantic Movement.

58b. SURVEY OF ENGLISH LITERATURE (1800-the present). *Four hours credit.*

Comprehensive readings in English literature following its development since the Romantic Movement.

58c. SURVEY OF AMERICAN LITERATURE. *Four hours credit.*

Readings of major writers from the beginning to the present with particular attention to democratic values.

60. AMERICAN LITERATURE TO THE CIVIL WAR. *Four hours credit.*

Prerequisite, Eng. 10. A study of a body of American literature produced in the 17th, 18th, and 19th centuries. The course includes textual criticism of the major works.

61. AMERICAN LITERATURE SINCE THE CIVIL WAR. *Four hours credit.*

Prerequisite, Eng. 10. A study of the literature of America since 1865, emphasizing in particular the development of modern American fiction and the late nineteenth century and twentieth century developments in American poetry. Particular attention is given to such writers as Whitman, James, Robinson, Frost, Sandberg, Faulkner, and Eliot.

101. NEWSWRITING. *Three hours credit.*

Principles of gathering and writing of news and feature stories, writing of editorials, editing and preparation of copy with emphasis upon educational news.

110a,b,c. CREATIVE WRITING. *Two hours credit each.*

Opportunity to write creatively under criticism with emphasis upon the individual's own purposes and experiences.

150. SHAKESPEARE—INTERMEDIATE COURSE. *Four hours credit.*

Prerequisite, Eng. 50. An intensive study of selected comedies, histories, and tragedies of Shakespeare, with special emphasis on critical reading of the texts, dramaturgy, and recent critical studies.

200a,b,c,d. WORKSHOPS IN THE TEACHING OF ENGLISH. (Summers only.) *Three hours credit each.*

A series of workshops in special problems in the teaching of English, conducted by authorities in the field.

201. JOURNALISM—THE SCHOOL NEWSPAPER AND ANNUAL. *Three hours credit.*

Instruction in all phases of preparation and publication of school newspapers and annuals.

203. NEW APPROACHES TO THE TEACHING OF GRAMMAR. *Three hours credit.*

A study of recent research in the grammar of the English language and an application of the results of the research to the study and teaching of English grammar.

204. DEVELOPMENTAL READING IN GRADES 7, 8, 9. *Four hours credit.*

A study of what should constitute a junior high school reading program—content, materials, and methods of instruction.

209. ADVANCED GRAMMAR AND SYNTAX. *Two hours credit.*

A study of the grammar of contemporary English, emphasizing the logic and conventions of acceptable English and demonstrating the necessary connection between grammatical analysis and meaning, with particular attention to areas where students encounter frequent difficulty in mastering the conventional patterns.

210. ADVANCED EXPOSITORY WRITING. *Three hours credit.*

Prerequisites, Eng. 4a and 4b, or equivalent. For upper division and graduate students with adequate preparation in grammar and composition. Application of the elements of style to the development of effective prose.

211. THE ENGLISH LANGUAGE. *Four hours credit.*

The course presents a history of the development of the English language, the historical basis of usage and grammar, the sources of the English vocabulary, and the problem of communication.

§221. LITERATURE IN THE ELEMENTARY SCHOOL. (Credit may be obtained in English or Library Science.) *Three hours credit.*

A survey of children's literature that is appropriate for grades through the sixth. Chief emphasis on modern selections. Consideration of interests and abilities governing the choice of literature in the first six grades.

§226. LITERATURE AND MATERIALS IN THE SECONDARY SCHOOL. (Credit may be obtained in English or Library Science.) *Four hours credit.*

Materials for teaching English in secondary schools. Principles for the selection of literature for high school pupils, and critical study of selected readings.

227. LITERATURE AND MATERIALS IN THE JUNIOR HIGH SCHOOL. *Five hours credit.*

Selection of literature and supplementary materials to fit the needs and interests of early adolescents. Methods of teaching literature in grades 7, 8, and 9.

228. THE TEACHING OF READING IN THE JUNIOR HIGH SCHOOL. *Five hours credit.*

Methods and materials to be used in the teaching of reading, both developmental and remedial, in grades 7, 8, and 9.

231. THE SHORT STORY. *Three hours credit.*

The study of typical modern short stories to observe the methods of modern writers and the interpretation of our present-day life embodied in this form of literature.

232. TECHNIQUES OF THE NOVEL. *Five hours credit.*

A study of seven or eight important English and American novels from Fielding to Faulkner to show different techniques which have been used to reveal the novelist's artistic insight.

235. CONTEMPORARY AMERICAN DRAMA. *Three hours credit*

A comprehensive view of the best dramatic literature of the modern American theater; lectures, discussions, and readings from a selected list of contemporary dramas.

236. MODERN DRAMA SINCE IBSEN. *Three hours credit.*

A study of the developments in modern European and American drama since the time of Ibsen, emphasizing the works of such writers as Ibsen, Shaw, Synge, O'Casey, O'Neill, and such other European and American writers as have been significant in the development of the twentieth century drama.

239. THE FORMS AND MEANING OF POETRY. *Four hours credit.*

A study of some of the formal aspects of poetry (prosody, stanzaic and "named" forms, and the like), of types (lyric, narrative, dramatic), and of the poets' use of language.

255c. ELIZABETHAN DRAMA EXCLUSIVE OF SHAKESPEARE. *Three hours credit.*

The drama from 1558 to 1642; the major dramatists, stage conditions, acting companies, and changes in dramatic form and subjects reflecting the life of the times.

257. HISTORY OF IDEAS IN ENGLISH LITERATURE. *Three hours credit.*

A synthesis of the literary periods in English literature through a study of ideas.

258a. READINGS IN ENGLISH LITERATURE FROM 700-1800. (Summers only.) *Four hours credit.*

A survey of English literature from Beowulf to the Romantic Movement.

258b. READINGS IN ENGLISH LITERATURE FROM 1800 TO THE PRESENT. (Summers only.) *Four hours credit.*

A survey of English literature from the Romantic Movement to the present time.

258c. READINGS IN AMERICAN LITERATURE TO 1865. (Summers only.) *Four hours credit.*

A survey of the beginnings of American literature until the time of the Civil War.

258d. READINGS IN AMERICAN LITERATURE SINCE 1865. (Summers only.) *Four hours credit.*

A survey of modern American literature.

289a. LITERATURE OF THE OLD TESTAMENT. *Three hours credit.*

A study of selected books of the Old Testament with emphasis on their literary qualities, and on the moral and religious progress they reveal. The historical and cultural background of these writings will be studied.

289b. LITERATURE OF THE NEW TESTAMENT. *Three hours credit.*
A comparative study of the Gospels, followed by a study of other New Testament writings and of the historical and cultural background of the period in which they were written.

0300. WRITING LABORATORY FOR GRADUATE STUDENTS. *No credit.*

A required remedial writing laboratory for graduate students whose English usage ability is low and who need help. No credit will be granted for the course. An extra fee for services and materials will be charged.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and techniques of research in the area of the graduate major. This course is required of all first-quarter graduate students who intend to receive the degree of Master of Arts.

302. THE AMERICAN CRITICS. *Four hours credit.*

A seminar for graduate students in theory and practice of criticism of literature in America. The major critics and the recognizable "schools" are analyzed.

303. RECENT ENGLISH AND AMERICAN POETS. *Four hours credit.*

Prerequisite, Eng. 239. A history of recent poetry in English from the Imagists to the present.

304. THE GREEK DRAMA. *Four hours credit.*

A study of the dramas of Aeschylus, Sophocles, Euripides and Aristophanes to note the development of dramatic technique and the developing ideas from the beginnings of classicism, through the golden age, to decadence.

311. THE ENGLISH ROMANTIC MOVEMENT. *Four hours credit.*

The origin, purpose and nature of the Romantic Movement. A study of the poetry and criticism of Wordsworth, Coleridge, Shelley, Keats and Byron; the prose of Lamb, Hazlitt and De Quincey.

312. OLD ENGLISH. *Five hours credit.*

Anglo-Saxon grammar and vocabulary. Reading of important documents from the period—Alfred's Translations, Charters and Historical Documents, Anglo-Saxon poetry, etc. Emphasis on background for contemporary grammar.

313. CHAUCER AND MIDDLE ENGLISH. *Five hours credit.*

Writings of Geoffrey Chaucer (especially *The Canterbury Tales* and *Troilus and Criseyde*) in Middle English: selected writings to illustrate both the literary qualities and linguistic aspects of Middle English.

314. SHAKESPEARE SEMINAR. *Four hours credit.*

Detailed study of three of the great plays, introduction to Shakespearean scholarship, and a review of Shakespearean criticism. Offered only when five or more students request the course.

315. MILTON SEMINAR. *Four hours credit.*

A study of Milton's major prose and poetry. Offered only when five or more students request the course.

316. SEMINAR IN TENNYSON AND BROWNING. *Four hours credit.*

A review of the shorter poems of both men and a special stress on some of the longer works (*Maud*, *Idylls of the King*, *The Ring and the Book*) and an introduction to the critical writings about Tennyson and Browning. Offered only when five or more students request the course.

317a,b. SEMINAR IN MAJOR AMERICAN WRITERS. *Four hours credit each.*

A study of selected American writers, with special emphasis on their relation to the currents of American thought. Reports by each member of the class will be determined by the interest of the student. Offered only when five or more students request the course.

318. SEMINAR IN RESTORATION AND EIGHTEENTH CENTURY DRAMA. *Four hours credit.*

A study of the types of plays written between 1660 and 1800, with particular attention to heroic tragedy, comedy of manners, and sentimental drama, as represented by such writers as Dryden, Wycherley, Etherege, Otway, Congreve, Steele, Addison, Goldsmith, and Sheridan. Offered only when five or more students request the course.

319. LITERATURE OF THE EIGHTEENTH CENTURY. (Summers only.) *Four hours credit.*

Prerequisite, graduate standing. A study of the leading writers of the eighteenth century, with emphasis being placed on the works of Pope, Swift, Boswell, and Johnson as major figures of the century. Major ideas emanating from the century will also be stressed.

320. SEMINAR IN VICTORIAN LITERATURE. *Five hours credit.*

Prerequisite, English major. A graduate course, for intensive individual research into the problems of the Victorian Era that bear upon major British writers: the relations between the literature and developments in politics, philosophy, religion, art, science, publication and the like that give distinctive meaning to the term "Victorian."

322. INDIVIDUAL STUDIES IN ENGLISH. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline definite problems and present a typewritten paper.

323. MODERN ENGLISH PHILOLOGY AND USAGE. *Four hours credit.*

Prerequisite, Eng. 211, or equivalent. An examination of the bases of current English usage, designed to acquaint the student with such matters as sound-changes, theories of correctness in grammar and pronunciation, and current discoveries or tendencies in linguistic science.

325. SEMINAR IN WORLD LITERATURE. (Summers only.) *Five hours credit.*

Prerequisite, graduate standing. The study in translation of one great work of non-English or American literature or of a small group of such masterpieces which are closely related either in form or idea. The selections vary with the needs of the students and the interest of the instructor.

326. RECONSTRUCTING THE ENGLISH CURRICULUM. *Four hours credit.*

A study of the place of English in the curriculum of the secondary school, with a consideration of appropriate materials and their placement.

399. THESIS. *Eight hours credit.***FOREIGN LANGUAGES MAJOR****Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

A. FOR BEGINNING STUDENTS IN LANGUAGES

Hours credit

1. Three years of one language (French, Spanish, or German) - - 36

2. One year of a second language - - - - - 12-15

B. FOR STUDENTS WITH LANGUAGE IN HIGH SCHOOL

1. If a student has had adequate basic courses, he may start his college work with the intermediate course, planning his program in the major and minor language with his adviser for a total of 48 hours.

Please note—except as provided above in B, no college credit will be given for language courses taken in high school.

3. One minor of 27 quarter hours.
4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

FOREIGN LANGUAGE MINOR

The following program is required: (1) Two years of one language plus methods in the teaching of foreign languages at either elementary or secondary level, as follows: Ed. 150b, 150c or F. Lang. 231, or F. Lang. 232; or, (2) Two years of one language, plus adequate work in F. Lang. 222, Individual Studies in Foreign Language.

FOREIGN LANGUAGES MAJOR Bachelor of Arts Degree (Liberal Arts)

The following program is required: (1) Common Courses listed on page 48; (2) The Foreign Language requirements listed above; (3) One minor; (4) Electives to complete requirements for graduation.

FOREIGN LANGUAGE MINOR

The requirement for a simple minor is 27 quarter hours in one language.

Description of Courses

FRENCH

1, 2, 3. ELEMENTARY FRENCH. *Five hours credit each.*

Introduction to idiomatic spoken and written French by means of vocabulary learning and the study of the structure of French. Class activities regarding grammar and cultural readings are limited realistically to spoken and written French. Audio and phonetic laboratory aids will be used to the extent that they may benefit the student's pronunciation and accurate fluency. Completion of three quarters necessary to earn credit.

5. INTERMEDIATE FRENCH COMPOSITION. *Four hours credit.*

Prerequisite, two years of high school French or one year of college French. Grammar review, study of idioms, imitative composition. Drill in use of the phonetic alphabet.

6. INTERMEDIATE FRENCH CONVERSATION. *Four hours credit.*

Prerequisites: two years high school French or one year of college French. This course aims at developing the student's ability to express himself in correct and idiomatic French. (This course may be taken without having had French 5.)

7. INTERMEDIATE FRENCH FICTION. *Four hours credit.*

Reading of one play and several short stories, with exercises and discussion in French based on the reading. (This course may be taken without having had French 5 or 6.)

105, 106, 107. SURVEY OF FRENCH LITERATURE. *Three hours credit each.*

Prerequisite, two years of college French or the equivalent. A study of French literature from the eleventh century to the first World War. Reading of an anthology, with lectures and discussion in French. Each course may be taken independently. French 105 deals with medieval and Renaissance literature, French 106 with the literature of the seventeenth and eighteenth centuries, French 107 with nineteenth and early twentieth century literature.

225. EIGHTEENTH CENTURY FRENCH LITERATURE. *Three hours credit.*

Prerequisite, two years of college French or the equivalent. French literature and thought in the eighteenth century and their influence on Europe and the United States. Readings and lectures in French.

226. FRENCH ROMANTICISM. *Three hours credit.*

Prerequisite, two years of college French or the equivalent. The Romantic Movement in France in relation to the movement elsewhere in Europe. Readings, lectures and discussion in French.

227. TWENTIETH CENTURY FRENCH LITERATURE. *Three hours credit.*

Prerequisite, two years of college French or the equivalent. A study of French literature since the first World War, with emphasis on the contemporary period. Lectures, individual readings and reports.

GERMAN**1, 2, 3. ELEMENTARY GERMAN.** *Five hours credit each.*

The course aims to develop an accurate pronunciation, a moderately large active vocabulary, a large passive vocabulary, and a sufficient understanding of grammar and sentence structure to enable the student to read without mental translation. Stress is laid on the phonological and grammatical relation of German to English. Credit is not given until three quarters are completed.

5. INTERMEDIATE GERMAN COMPOSITION. *Four hours credit.*

Prerequisite, two years of high school German or one year of college German. A review of grammar, with oral and written exercises based on the reading of an adapted novel.

6. INTERMEDIATE GERMAN READING AND CONVERSATION. *Four hours credit.*

Prerequisite, two years of high school German or one year of college German. A reader tracing the cultural history of Germany from the first century of our era to the present will be studied and used as a basis for discussion in German. (This course may be taken without having had German 5.)

7. INTRODUCTION TO GERMAN CLASSICS. *Four hours credit.*

Prerequisite, at least one quarter of Intermediate German. The class will study one five-act play of the classical period, and an anthology of short poems, with questions and discussion in German.

105. SURVEY OF GERMAN LITERATURE. *Three hours credit.*

Prerequisites, two years of college German or equivalent. German literature from the earliest beginnings through the 17th century. Pagan and early Christian literature, and then emphasis on the folk epic, the courtly epic, the courtly lyric, and on the Reformation period, with readings from Martin Luther and the humanists.

106. SURVEY OF GERMAN LITERATURE. *Three hours credit.*

Prerequisites, two years of college German or equivalent. German literature of the 18th and 19th centuries. Emphasis on the six great classical writers—Klopstock, Wieland, Lessing, Herder, Goethe and Schiller—with more intense effort on Goethe and Schiller. The historical and social background of all six will be explored. The decline of Classicism and the flowering of Romanticism will be traced.

107. SURVEY OF GERMAN LITERATURE. *Three hours credit.*

Prerequisites, two years of college German or equivalent. A survey of modern German literature—latter 19th and 20th century writing. Emphasis on development and importance of Naturalism in 19th century, with Gerhart Hauptmann as chief exponent. Poetry of Naturalism, Impressionism and Expressionism. Importance of Rainer Maria Rilke. Prose writings of Thomas and Heinrich Mann, Kafka and Hesse.

ITALIAN**1, 2, 3. ELEMENTARY ITALIAN.** *Five hours credit each.*

Introduction to idiomatic spoken and written Italian by means of vocabulary learning and the study of the structure of Italian. Class activities regarding grammar and cultural readings are limited realistically to spoken and written Italian. Audio and phonetic laboratory aids will be used to the extent that they may benefit the student's pronunciation and accurate fluency. Completion of three quarters necessary to earn credit.

5. INTERMEDIATE ITALIAN. *Four hours credit.*

Prerequisites: two years of high school Italian or one year of college Italian. A grammar review followed by the reading of modern Italian prose.

6. INTERMEDIATE ITALIAN. *Four hours credit.*

Prerequisite, Italian 5. A continuation of Italian 5 with more advanced reading and composition and conversation.

7. INTERMEDIATE ITALIAN. *Four hours credit.*

Prerequisite, Italian 6. The study of Italian authors. Oral and written reports in Italian. A continuation of work in composition.

LATIN**1, 2, 3. ELEMENTARY LATIN.** *Four hours credit each.*

A foundation course for the study of Latin literature, with abundant drill in inflections and syntax and a terminal course for students who wish Latin as a background for the study of other languages or for the professions, with emphasis in vocabulary, word derivation and comparative grammar.

5, 6, 7. INTERMEDIATE LATIN. *Four hours credit each.*

Prerequisite, two years of high school Latin or one year of college Latin. Reading of Latin prose and poetry of intermediate difficulty, accompanied by a review of grammar, exercises in composition, and an introduction to the system of Latin versification. Each course may be taken independently. (Given when there is sufficient demand.)

205, 206, 207. SURVEY OF LATIN LITERATURE. *Three hours credit each.*

Prerequisite, four years of high school Latin or two years of college Latin. Reading of an anthology containing selections of intermediate grade, accompanied by constant intensive grammar review. Each course may be taken independently.

RUSSIAN**1, 2, 3. ELEMENTARY RUSSIAN.** *Five hours credit each.*

An introduction to spoken and written Russian with a view toward giving the student a sound knowledge of the structure of the language and a high-frequency vocabulary of approximately 1,100 words. Audio-visual aids will be used as needed.

SPANISH**1, 2, 3. ELEMENTARY SPANISH.** *Five hours credit each.*

A three-quarter sequence in the basic elements of Spanish through the aural-oral conversational approach; intensive and extensive use of aural-oral materials; writing and reading exercises; the use of audio-visual aids and devices to provide practical materials for pronunciation comprehension, adequate construction, and fluency of expression in the language. Credit is not given until three quarters are completed.

5. INTERMEDIATE SPANISH. *Four hours credit.*

Prerequisite, two years of high school Spanish or one year of college Spanish or the equivalent. Review of the basic principles of the language. Aural-oral orientation through oral and written composition, conversation and audio-visual aids; stressing normal fluency and readiness in the use of Spanish in ordinary communication.

6. INTERMEDIATE SPANISH. *Four hours credit.*

Prerequisite, Spanish 5. A continuation of Spanish 5 but emphasizing more intensive reading, oral reports, advanced composition, and extensive conversation based on Spanish and Spanish-American culture.

7. INTERMEDIATE SPANISH. *Four hours credit.*

Prerequisite, Spanish 6. A continuation of Spanish 6. Based on Spanish-American cultural materials, sources, films, audio-visual materials and a higher level of all-around comprehension and fluent functional use of the language and culture.

105. SURVEY OF SPANISH LITERATURE AND CIVILIZATION. *Three hours credit.*

Prerequisite, two years of college Spanish or the equivalent. An introduction and orientation to Spanish Literature and the high points of Spain's civilization and culture. This is not a translation course. The use of the Spanish language is most important.

106. SURVEY OF SPANISH-AMERICAN LITERATURE. *Three hours credit.*

Prerequisite, two years of college Spanish or the equivalent. The beginning of Spanish-American literature; its development and influence into the colonial period. The leading authors and their role in national life.

107. SURVEY OF LATIN-AMERICAN LITERATURE. *Three hours credit.*

Prerequisite, two years of college Spanish or the equivalent. A continuation of Spanish-American literature; its influence and its role in the national life of colonial Spanish America. The movements for independence reflected by leading South American writers. Modern literature and its influence.

175. SPANISH READING. *Three hours credit.*

Prerequisite, at least one year of college Spanish or the equivalent. Designed to fit the reading abilities and interests of various students. Class meets two days a week for intensive reading. Extensive outside reading is reported in conference.

205. THE HIGHLIGHTS OF SPANISH CIVILIZATION AND CULTURE. (Summers only.) *Four hours credit.*

A study of some outstanding contributions and contributors to the organization and creation of Spanish culture and civilization from the time of Seneca. Emphasis is placed on the great philosophers, artists and other leaders who have made salient contributions to Spanish culture.

209. SPANISH-AMERICAN LITERATURE. (Summers only.) *Four hours credit.*

This course is designed to serve advanced students and teachers of Spanish. It consists of an anthology of Latin-American literature in Spanish, and a brief reference outline of the history of literature in English. Readings, discussions, and reports are in Spanish.

216a,b. ADVANCED SPANISH READING IN LITERATURE. *Three hours credit each.*

This study of Spanish literature is divided into two parts: one quarter is devoted to each part. 216a, from the beginning to 1700, including the Golden Age; 216b, from 1700 to the contemporary. A brief analysis of the history of Spanish literature and important literary productions. Special readings of various types of literature; oral and written reports and discussion.

FOREIGN LANGUAGES**210. LINGUISTICS.** *Three hours credit.*

A brief survey of the world's chief languages, their geographical distribution, main cultural features and appearance. In more detail, classification of the Indo-European languages, with particular stress on historical development, basic grammatical structure, resemblances, differences and relationships of English, French, German and Spanish.

222. INDIVIDUAL STUDIES IN FOREIGN LANGUAGE. *Credit by arrangement. Maximum credit five hours.*

Prerequisite, two years of college, or the equivalent, of the language in which the study is made. Individual readings and written reports, with regular conferences, in any subject the student may select; in any foreign language offered in the college (French, German, Italian, Latin, Spanish, Russian).

231. THE TEACHING OF FOREIGN LANGUAGES. *Four hours credit.*

A study of problems in the teaching of foreign languages at the secondary and elementary school levels. Includes development of content for course of study, organization of learning materials, procedures in teaching, testing and evaluating.

232. TEACHING FOREIGN LANGUAGE IN THE ELEMENTARY SCHOOL. *Three hours credit.*

Especially for teachers of the elementary school level, but including all levels of instructions. A study of today's practical values, aims, methods, approaches, procedures, and means and materials for attaining success in teaching modern foreign languages.

SPEECH OR DRAMA MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in a major:

DRAMA MAJOR

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Sp. 16	Voice and Diction	4
Sp. 63	First Course in Drama	4
Sp. 65	Beginning Scene Design	3
Sp. 113	Stagecraft	3
Sp. 114	Introduction to the Theater	3
Sp. 115	Beginning Characterization	3
Sp. 116	Beginning Play Direction	4
Sp. 164	Introduction to Speech Correction	3
Sp. 200	Techniques of Play Direction	3
Sp. 232	Advanced Scene Design	3
Eng. 50	Shakespeare	3
<i>or</i>		
Eng. 150	Shakespeare—Intermediate Course	4
Eng. 235	Contemporary American Drama	3
	Electives in Drama	8 or 9
		48

SPEECH MAJOR

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Sp. 5	Fundamentals of Speech	2
Sp. 16	Voice and Diction	4
Sp. 62	Public Speaking	4
Sp. 63	First Course in Drama	4
Sp. 114	Introduction to the Theater	3
Sp. 117	Oral Interpretation	3
Sp. 118	Argumentation and Debate	3
Sp. 164	Introduction to Speech Correction	3
Sp. 218	Discussion Techniques	4
Sp. 265a	Clinical Practice in Speech Correction	1
Sp. 280	American Public Address	4
	Electives	13
		48

3. At least one minor of 27 quarter hours.

4. 28 to 35 quarter hours of electives to complete 180 quarter hours of academic credit required for graduation.

Students majoring or minoring in Speech or Drama are expected to participate in the activities related to those areas: theater production, forensics, and clinical practice.

Drama Minor

Course Number	Course Title	Hours	Credit
Sp. 16	Voice and Diction	4	
Sp. 63	First Course in Drama	4	
Sp. 65	Beginning Scene Design	3	
Sp. 113	Stagecraft	3	
Sp. 115	Beginning Characterization	3	
Sp. 116	Beginning Play Direction	4	
	Electives in Drama	6	
			27

Speech Minor

Course Number	Course Title	Hours	Credit
Sp. 5	Fundamentals of Speech	2	
<i>or</i>			
Sp. 62	Public Speaking	4	
Sp. 16	Voice and Diction	4	
Sp. 118	Argumentation and Debate	3	
Ed. 150c	Teaching Speech in the Secondary Schools	3	
Sp. 164	Introduction to Speech Correction	3	
Sp. 265a	Clinical Practice in Speech Correction	1	
Sp. 218	Discussion Techniques	4	
	Electives	5 or 7	
			27

SPEECH OR DRAMA MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following program is required. (1) Common Courses listed on page 48; (2) The Speech or Drama requirements listed for the major with teaching certificate except that substitutions may be made with the consent of the adviser; (3) One minor; (4) Electives to complete requirements for graduation.

Speech or Drama Minor

The liberal arts minor is the same as that listed with the teaching certificate; substitutes may be made with the consent of the adviser.

SPEECH AND DRAMA

5. FUNDAMENTALS OF SPEECH. *Two hours credit.*

This is a basic course in speech designed to aid the student in acquiring ease, poise, and effectiveness in speech.

16. VOICE AND DICTION. *Four hours credit.*

A study of the development and use of the speaking voice with particular attention to individual needs.

18. INTERCOLLEGIATE FORENSICS. *Two hours credit.*

Primarily for those students participating in campus and intercollegiate programs in speech.

45. SPEECH COMPOSITION. *Two hours credit.*

This course consists of the study of the techniques involved in the writing of speeches. Several speeches are studied analytically and speeches are then written to be memorized.

62. PUBLIC SPEAKING. *Four hours credit.*

Emphasis is placed on the preparation, organization, and presentation of the various types of speeches.

63. FIRST COURSE IN DRAMA. *Four hours credit.*

An introduction to the basic principles of acting and dramatic production.

§65. BEGINNING SCENE DESIGN. (Credit may be obtained in The Arts or Humanities.) *Three hours credit.*

For description of this course, see page 73.

108. PARLIAMENTARY PROCEDURE. *Two hours credit.*

A study of the rules which govern procedure in organized groups and practice in the application of those rules.

112. CHILDREN'S THEATER. *Three hours credit.*

A lecture and laboratory course in dramatics for elementary and secondary school teachers. Contribution of creative dramatics to education. Demonstration of procedure best adapted to work in children's dramatics.

113. STAGECRAFT. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisite, Sp. 65. This course deals specifically with the problems and materials of play production. Materials and methods of staging, an introduction to lighting and lighting practices, and techniques of costuming the play receive the major emphasis in this course.

114. INTRODUCTION TO THE THEATER. *Three or four hours credit.*

An introductory course to the theater which gives a comprehensive outline of the living stage, its players and craftsmen and its place in society from primitive drama to contemporary American and European theaters.

115. BEGINNING CHARACTERIZATION. *Three hours credit.*

Prerequisite, Sp. 63. A lecture and laboratory course in characterization in which the student participates in college theater productions.

116. BEGINNING PLAY DIRECTION. *Four hours credit.*

Prerequisite, Sp. 63. A lecture and laboratory course in the principles of direction in which the student participates in college theater productions.

117. ORAL INTERPRETATION. *Three hours credit.*

The student is given an opportunity to read aloud in all the forms of literature and is aided in gaining skill in an artistic presentation.

118. ARGUMENTATION AND DEBATE. *Three hours credit.*

A basic course designed to give the speaker experience and skill in debate.

120. TEACHING DRAMA IN THE SECONDARY SCHOOL AND JUNIOR HIGH SCHOOL. *Three hours credit.*

Prerequisite, completion of courses listed for the minor. A study of the problems, projects and organization of materials suitable for use by high school students and those in junior high school.

123. BASIC SPEECH AND ORAL READING. *Five hours credit.*

A course for prospective junior high school teachers. It is designed to develop basic speech skills and to provide meaningful learning experiences in speaking and oral reading.

124. TEACHING SPEECH IN JUNIOR HIGH SCHOOL. *Four hours credit.*

Introduction to the study of the teaching of speech with consideration of goals, source materials, and projects. The correcting of articulatory problems will be stressed. Sp. 265a required as a part of the course (one hour credit).

130. DRAMA IN THE JUNIOR HIGH SCHOOL. *Five hours credit.*

A course in the selection of materials for use in junior high school, and an examination of production methods, staging procedures, and the use of creative dramatics with junior high school students of drama.

§164. INTRODUCTION TO SPEECH CORRECTION. (Credit may be obtained in Speech or Special Education.) *Three hours credit.*

Sp. 16 suggested as preparatory. An introduction to the area of speech difficulties on the elementary, secondary, and college levels. Training in recognition, diagnosis and treatment of minor speech problems. Sp. 265a required as a part of the course.

200. TECHNIQUES OF PLAY DIRECTION. *Three hours credit.*

Prerequisites, Sp. 63, Sp. 115, Sp. 116 or equivalent. An advanced course in the direction of three-act and one-act plays for public presentation.

208. RADIO SPEAKING. *Four hours credit.*

This course is designed to give an opportunity to study and practice the speech skills associated with radio production.

213. ADVANCED STAGING TECHNIQUES. *Four hours credit.*

Prerequisites, Sp. 65, Sp. 113, Sp. 232, or approval of the instructor. The study and practice of the latest trends and developments in scenic design, staging methods and techniques. Special attention is directed toward stage management, care and maintenance of equipment and materials. Emphasis is upon stage mechanics and materials of the modern theater.

214. SUMMER THEATER WORKSHOP. (Summers only.) *Four hours credit.*

Prerequisite, student must be a member of the summer theater company. Practical experience in acting and other aspects of theater work in the six productions done by the summer theater. Discussion, lecture, and laboratory procedures used.

214a,b,c. SUMMER THEATER WORKSHOP. (Summers only.) *Three hours credit each.*

Prerequisite, summer theater membership, and/or permission of instructor. Workshop in techniques of acting, directing and technical work as observed in the daily rehearsal periods of the Little Theatre of the Rockies. Student must spend 6-8 hours per day in rehearsals, either as player or technical assistant.

215. DIRECTING HIGH SCHOOL PLAYS. *Three hours credit.*

The reading and discussion of plays suitable for production at the high school level. The projects in the course are designed to give the student practical experience in the direction of the players.

217. ADVANCED ORAL INTERPRETATION. *Three hours credit.*

Prerequisite, Sp. 117 or consent of instructor. The development of greater artistic skill in reading various forms of literature.

218. DISCUSSION TECHNIQUES. *Four hours credit.*

Principles and practice in organizing, conducting, and participating in all forms of public discussion including round-tables, symposiums, debates, and forums.

220. STAGE COSTUMING. *Four hours credit.*

Prerequisites, Speech 65, 113, and 116 or the equivalent. A study of the styles of costume used in the theater from primitive times to the present. Practical experience is gained through actual work in costume construction required by the Little Theatre of the Rockies productions.

222. INDIVIDUAL STUDIES IN SPEECH OR DRAMA. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Prerequisites, senior standing and permission of the instructor. Research and problems relating to speech or dramatic production and dramatic literature. Advanced students work on individual problems in speech or drama.

§232. ADVANCED SCENE DESIGN. (Credit may be obtained in The Arts or Humanities.) *Three hours credit.*

For description of this course, see page 75.

248. WORKSHOP IN SPEECH EDUCATION. (Summers only.) *Three hours credit.*

An opportunity to study cooperatively the problems involved in teaching speech. The area or areas to be covered in any one workshop will be determined by the interests and needs of the group or by previous announcement. These areas will include such matters as curriculum, class instructional projects, co-curricular speech activities, remedial techniques, evaluation, etc.

250. SPEECH EDUCATION. *Four hours credit.*

A seminar study of speech education: history, practices, and trends.

250a. LABORATORY IN INSTRUCTIONAL MATERIALS IN TEACHING SPEECH. (Summers only.) *Three hours credit.*

A laboratory course in which students will study the availability and the use of motion picture films, filmstrips, records, and recording equipment in teaching speech and will develop and construct instructional aids such as motion pictures, slides, models, charts, etc.

251. SPEECH FOR THE CLASSROOM TEACHER. *Four hours credit.*

A course designed to increase the personal effectiveness of the teacher in the classroom with emphasis on the improvement of instructional speaking. Not for speech majors.

252. BUSINESS AND PROFESSIONAL SPEAKING. *Four hours credit.*

Designed particularly to give school administrators instruction and practice in organizing and presenting speeches which they are called upon to make in connection with their professional positions.

260. INTRODUCTION TO GENERAL SEMANTICS. *Four hours credit.*

An analysis of the factors in communication that lead to misunderstandings and conflict with suggestions for improving communication.

§265a. CLINICAL PRACTICE IN SPEECH CORRECTION. (Credit may be obtained in Speech or Special Education.) *Maximum of ten hours credit.*

This course supplements the methods of speech diagnosis and treatment with observation and supervised teaching in the college speech clinic and is a required part of Sp. and Spec. Ed. 164, Sp. and Spec. Ed. 265, and Spec. Ed. 254. A minimum of 200 clock hours in the laboratory is one of the requirements necessary to qualify for state certification as a speech correctionist.

§268. SPEECH CORRECTION IN THE CLASSROOM. (Credit may be obtained in Special Education or Speech.) *Four hours credit.*

For description of this course, see page 130.

280. AMERICAN PUBLIC ADDRESS. *Four hours credit.*

A historical and critical study of representative American speakers and speeches.

294. CRITICAL THINKING. *Three hours credit.*

A study of evidence, reasoning, semantics, beliefs, and prejudice as they affect thought processes involved in the communication of knowledge and ideas.

§16. SEMINAR IN THEATER PRODUCTION. *Four hours credit.*

Prerequisites, Sp. 200, 215. An analysis of the practical problems in theater production, acting techniques, and the technical phases of setting and lighting the stage.

- 322. INDIVIDUAL STUDIES IN SPEECH OR DRAMATICS.** (Summers only.) *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline a definite problem and present a typewritten paper on any of the areas of speech: public speaking, debate, speech pathology, discussion; or drama; educational theater, theater direction, history of the theater, acting, or stagecraft.

- 330. HISTORY OF THE THEATER.** *Three hours credit.*

Prerequisite, Sp. 114. A study of theaters, actors, and acting from primitive times to the present. The periods are illustrated with readings from representative plays. Emphasis is placed on the theater as a social and cultural institution.

- 333. ADVANCED CHILDREN'S THEATER PRODUCTION.** *Four hours credit.*

An advanced course in the practical problems of production in a theater for children. Emphasis is placed on the educational possibilities of this type of theater and practical experience is gained through work with community groups and with junior high school students.

- 350. SPEECH CRITICISM.** *Four hours credit.*

A study of public speaking in principle and practice, including the derivation and application of standards for judging effectiveness in speaking.

- 360. GENERAL SEMANTICS.** *Four hours credit.*

An analysis of language habits which lead to conflict, confusion, and prejudice, and the development of methods leading to greater accuracy and sanity in the use of language.

- §370. THE PSYCHOLOGY OF SPEECH.** (Credit may be obtained in Speech or Special Education.) *Four hours credit.*

A study of the nature and origin of speech; the relationship of speech to emotion, learning, meaning and thought; the development of speech in the child; speech and personality.

- §375. PHONETICS.** (Credit may be obtained in Speech or Special Education.) (Summers only.) *Four hours credit.*

The science of speech sounds with special application to the use of phonetics in speech instruction in elementary and secondary schools.

Division of Music

The Division of Music offers a complete program in the professional education of the teacher-musician with special emphasis upon the preparation of teachers of music for the public schools. The program includes all significant areas of music study such as music theory, sight reading and ear training, history and literature of music, public school music methods, and all areas of individual and ensemble music performance. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (with teaching certificate)

Major: Music Education.

Minors: Voice and Choral Music, Band and Band Instruments, Stringed Instruments and Orchestra, and Elementary Music Education.

BACHELOR OF ARTS AND BACHELOR OF MUSIC DEGREES (with teaching certificate)

Major: Music Education (a five-year program)

MASTER OF ARTS DEGREE (with teaching certificate)

Majors: Music Education, Supervision of Music.

Minors: Voice and Choral Music, Band and Band Instruments, Stringed Instruments and Orchestra, and Elementary Music Education.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (with teaching certificate)

Area of Concentration: Music Education.

Supporting Area: Music Education.

MUSIC EDUCATION MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Mus. 2a	Sight Singing and Notation	2
Mus. 2b	Sight Singing and Elementary Theory	2
Mus. 2c	Sight Singing and Harmonic Analysis	2
Mus. 10a,b,c	Beginning Class Piano	
	or	
Mus. 20a,b,c	Intermediate Class Piano	3
Mus. 11a,b,c	Beginning String Instruction	3
Mus. 50a,b,c	Introduction to Music Education	6
Mus. 51a,b,c	Advanced Sight Singing and Choral Literature	3
Mus. 52a,b,c	Harmony	9

Mus.	58a	- -	Music Literature and Styles	- - - - -	1
Mus.	152	- -	Counterpoint	- - - - -	3
Mus.	153	- -	Form and Analysis	- - - - -	3
Mus.	154	- -	Instrumentation	- - - - -	3
Mus.	158a,b,c	- -	History of Music	- - - - -	6
Mus.	165	- -	Teaching Instrumental Music	- - - - -	2

48

3. One minor of 27 quarter hours outside the Division of Music.

4. Electives to complete requirements for graduation.

Highly recommended elective courses leading to instrumental teaching emphasis:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Mus. 144	- - Mixed Concert Choir	- - - - - 3
	<i>and/or</i>	
Mus. 164a,b,c	- - Laboratory Choir	- - - - - 3
Mus. 161a,b,c	- - Laboratory Orchestra	- - - - - 3
Mus. 162a,b,c	- - Instrumental Techniques and Conducting	- - 3
Mus. 163a,b,c	- - Laboratory Band	- - - - - 3
Mus. 190	- - Clarinet Class	- - - - - 1
Mus. 191	- - Trumpet Class	- - - - - 1
Mus. 192	- - Brass Class	- - - - - 1
Mus. 193	- - String Class	- - - - - 1
Mus. 194	- - Percussion Class	- - - - - 1
Mus. 195	- - Double Reed Class	- - - - - 1
Mus. 196	- - Voice Class	- - - - - 1
Mus. 197	- - Flute and Saxophone Class	- - - - - 1
Mus. 220	- - Instrument Repair and Care	- - - - - 2
Mus. 241	- - Marching Band Techniques	- - - - - 2

Highly recommended elective courses leading to vocal teaching emphasis:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Mus. 58a,b,c	- - Music Literature and Styles	- - - - - 3
Mus. 161a,b,c	- - Laboratory Orchestra	- - - - - 3
Mus. 163a,b,c	- - Laboratory Band	- - - - - 3
Mus. 166a,b,c	- - Choral Techniques and Conducting	- - - - - 3
Mus. 190	- - Clarinet Class	- - - - - 1
Mus. 191	- - Trumpet Class	- - - - - 1
Mus. 194	- - Percussion Class	- - - - - 1
Mus. 211	- - Improvement of Instruction in Music Reading	3
Mus. 214	- - Choral Literature	- - - - - 3
Mus. 216	- - Music Methods and Materials for Class	
	Voice Instruction	- - - - - 3
Mus. 277	- - Church Music	- - - - - 3
Mus. 278	- - Repertoire for Singers	- - - - - 3

Music Proficiencies and Activity Requirements

Major Performance—The music major must demonstrate continuous growth in his ability to perform on his major instrument. Each student will be expected to appear frequently as a soloist in the weekly student recital series. During the senior year he will be presented in joint recital with other graduating seniors. Such proficiency in performance requires continuous study of the major instrument under the tutorship of a private teacher.

Piano — Prior to the granting of assignment to carry on student teaching the student must demonstrate the ability to play, at sight, a piano accompaniment suitable for community or classroom singing. The final piano test must be taken not later than registration day of the spring term of the student's junior year.

Music Activity — Continuous participation in one or more of the major music organizations of the college — band, orchestra, or chorus.

Recital Attendance — All music majors are required to attend student and faculty recitals.

The amount of credit earned in music activity and music performance courses to be applied toward degree requirements will be determined for each student individually upon recommendation of the student's adviser and the Chairman of the Division of Music.

Graduate Students — In addition to satisfying the requirements for the Master of Arts degree as stated in the graduate section of this catalog, the music major will be expected to complete the following core courses:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Mus. 250	Seminar in Music Education	3-4
Mus. 270a,b or c	Advanced Harmony and Form Analysis	3-4
Mus. 370	Aural Theory	3-4

MUSIC EDUCATION MAJOR

Bachelor of Arts (With Teaching Certificate) and Bachelor of Music Degrees — Five-Year Combined Course

Admission to candidacy for the combined Bachelor of Arts and Bachelor of Music degrees is based upon the recommendation of a reviewing committee composed of members of the Music Division. The student who desires to complete the combined degrees must demonstrate an outstanding degree of musical talent. Application for admission to the combined degree program must take place prior to the close of the student's second year in college.

The following is required for the completion of the combined degrees program:

Music and Music Education Courses

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Bachelor of Arts Degree (with teaching certificate)		186
(Includes 6 quarter hours of physical education activity courses)		
Additional applied music		27
Music elective courses*		18
		231

*Select from the following:

Mus. 214	Choral Literature	3-4
Mus. 215	Instrumental Literature	3-4
Mus. 250	Seminar in Music Education	3-4

Mus.	262	- -	Symphonic Literature	- - - - -	3
Mus.	276	- -	Survey of American Music	- - - - -	3
Mus.	277	- -	Church Music	- - - - -	3
Mus.	278	- -	Repertoire for Singers	- - - - -	3
Mus.	295	- -	The Art of Music Listening	- - - - -	3-4

Music Proficiencies — Complete the proficiency requirements outlined for the Bachelor of Arts degree. In addition, the student will supplement this proficiency requirement by:

Major Performance — Complete 27 additional quarter hours of work in his major instrument. The student will register for three quarter hours of work in his major instrument each term through the third, fourth and fifth years of study.

Recital — Each candidate for the combined degrees will present a complete graduation recital.

Music Education Minors

Voice and Choral Minor

Course Number	Course Title	Hours	Credit
Mus. 2a,b,c	Sight Singing and Ear Training	- - - - -	6
Mus. 30	Individual Instruction in Voice	- - - - -	3
Ed. 150e	Observation and Participation in Secondary School Music	- - - - -	2
Mus. 166a,b,c	Choral Techniques and Conducting	- - - - -	3
Mus. 216	Methods and Materials for Class Voice Instruction	- - - - -	3
Mus. 278	Repertoire for Singers	- - - - -	3
	Choral Activity	- - - - -	4
	Electives	- - - - -	3
			<hr/> 27

Band and Band Instruments Minor

Course Number	Course Title	Hours	Credit
Mus. 2a,b,c	Sight Singing and Ear Training	- - - - -	6
Mus. 35	Individual Instruction in Woodwind Instruments	- - - - -	
	or		
Mus. 36	Individual Instruction in Brass Instruments	- - - - -	6
Mus. 162a,b,c	Instrumental Techniques and Conducting	- - - - -	3
Mus. 165	Teaching Instrumental Music	- - - - -	2
Mus. 190	Clarinet Class	- - - - -	1
Mus. 191	Trumpet Class	- - - - -	1
Mus. 192	Brass Class	- - - - -	1
Mus. 194	Percussion Class	- - - - -	1
Mus. 195	Double Reed Class	- - - - -	1
Mus. 197	Flute and Saxophone Class	- - - - -	1
	Electives	- - - - -	4
			<hr/> 27

Stringed Instruments and Orchestra Minor

Course Number	Course Title	Hours	Credit
Mus. 2a,b,c	Sight Singing and Ear Training	- - - - -	6
Mus. 11a,b,c	Beginning String Instruction	- - - - -	3
Mus. 32	Individual Instruction in Stringed Instruments	- - - - -	6
Mus. 143	College Orchestra	- - - - -	4
Mus. 161a,b,c	Laboratory Orchestra	- - - - -	3
Mus. 162a,b,c	Instrumental Techniques and Conducting	- - - - -	3
	Electives	- - - - -	3
			<hr/> 27

Music Minors for Elementary Education Majors

PLAN A

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Mus. 10a,b,c	Beginning Class Piano	- - - - -
	or	
Mus. 20a,b,c	Intermediate Class Piano	- - - - -
	or	
Mus. 31	Individual Instruction in Piano	- - - - - 4
Mus. 48a,b	Music Fundamentals for Elementary Teachers	- - - - - 4
Mus. 149	Music Methods and Materials for Elementary Teachers	- - - - - 3
Mus. 210	Music Literature for Elementary Grades	- - - - - 3
Mus. 211	Improvement of Instruction in Music Reading	- - - - - 3
Mus. 212	Music Activities for Classroom Teachers	- - - - - 3
	Music Activity—Band, Orchestra or Chorus	- - - - - 4
	Electives	- - - - - 3
		27

PLAN B

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Mus. 2a,b,c	Sight Singing and Ear Training	- - - - - 6
Mus. 10a,b,c	Beginning Class Piano	- - - - -
	or	
Mus. 20a,b,c	Intermediate Class Piano	- - - - -
	or	
Mus. 31	Individual Instruction in Piano	- - - - - 3
Mus. 50a,b,c	Introduction to Music Education	- - - - - 6
Mus. 210	Music Literature for Elementary Grades	- - - - - 3
Mus. 211	Improvement of Instruction in Music Reading	- - - - - 3
Mus. 212	Music Activities for Classroom Teachers	- - - - - 3
	Electives	- - - - - 3
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Description of Courses

MUSIC THEORY, HISTORY AND LITERATURE

2a. SIGHT-SINGING AND NOTATION. *Two hours credit.*

Sight reading of standard music materials, pitch and rhythmic dictation, symbols of music notation, staff, clefs, scale construction in major and minor keys, and intervals.

2b. SIGHT-SINGING AND ELEMENTARY THEORY. *Two hours credit.*

Prerequisite, Music 2a. Continuation of sight-reading, ear training, and dictation; elementary theory to include study of intervals and inversions, triads and inversions, construction of principal and secondary chords, melody writing, and elementary form study.

2c. SIGHT-SINGING AND HARMONIC ANALYSIS. *Two hours credit.*

Prerequisites, Music 2a and 2b. Continuation of sight-reading, ear training and dictation; chords of seventh and ninth, cadences, analysis, and ear training of standard harmonic materials.

48a. MUSIC FUNDAMENTALS FOR ELEMENTARY TEACHERS. *Two hours credit.*

A comprehensive study of the rudiments of music for the classroom teacher. Practice is given in simple ear training, music writing through dictation, rhythm work, syllable reading, and group singing.

48b. MUSIC FUNDAMENTALS FOR ELEMENTARY TEACHERS. *Two hours credit.*

Prerequisite, Music 48a. This course is a continuation of Music 48a. Advanced music reading, dictation, and theory will be studied; the use of the keyboard for chord study and accompanying; the playing of simple melody instruments suitable for elementary grades; and the study of the background of the world's great music for elementary schools.

51a. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE. *One hour credit.*

Prerequisites, Music 2a, 2b, 2c or equivalent. This course is a continuation of the first year courses in sight-singing and will provide additional and more advanced training in the techniques of sight-singing and ear-training of melodic, harmonic and rhythmic materials.

51b. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE. *One hour credit.*

Prerequisite, Music 51a. Continuation of training in sight-singing, ear training, and includes rhythmic, melodic and harmonic dictation. Emphasis will be given to the reading of a wide variety of standard choral works graded to supply reading experiences of progressive difficulty.

51c. ADVANCED SIGHT-SINGING AND CHORAL LITERATURE. *One hour credit.*

Prerequisite, Music 51b. A continuation of the sight-singing, ear training, and dictation experiences given in the preceding courses of this series. Reading experience in this course will include standard materials for mixed women's and men's choruses and the large vocal forms; opera and oratorio.

52a. HARMONY. *Three hours credit.*

Prerequisite, Music 2c. A review of scales, intervals, triads and their inversions; correlated studies in ear training, dictation, sight-singing and composition; normal chord progressions.

52b. HARMONY. *Three hours credit.*

Prerequisite, Music 52a. A structural harmony unit consisting of seventh chords, inversions, ninth chords and modulations; correlated studies of ear training, dictation, sight-singing and composition.

52c. HARMONY. *Three hours credit.*

Prerequisite, Music 52b. A structural harmony unit consisting of chromatic harmony, altered chords, embellishing chords, modulations and original compositions.

58a,b,c. MUSIC LITERATURE AND STYLES. *One hour credit each.*

The twofold purpose of this course is to foster an appreciation for the best in music and to provide the student with basic music information in the fields of media, terminology, chronology, biography, repertoire and stylistic analysis.

100. MUSIC APPRECIATION. *Two hours credit.*

A non-technical course aiming to increase the enjoyment and appreciation of music by the listener with little or no previous background. This course will be devoted largely to listening and discussion of the assigned listening.

152. COUNTERPOINT. *Three hours credit.*

Prerequisite, Music 52c. A study of the five species of counterpoint through four parts (or voices): the invention, canon, and fugue; a seminar on the construction and form as applied to contrapuntal technique.

153. FORM AND ANALYSIS. *Three hours credit.*

The purpose of this course is to acquaint the student with the structure of music, beginning with the single note or figure through to the analysis of the sonata, rondo, and variation forms.

154. INSTRUMENTATION. *Three hours credit.*

Prerequisites, Music 152, 153. A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from a few instruments to a full symphony orchestra.

156. SEMINAR IN PIANO LITERATURE. *Two hours credit.*

Prerequisites, adequate piano skill to read and perform material studied. This course is designed to acquaint performers and teachers with piano repertoire. Traditional styles, techniques, and interpretations are discussed and performed. Practical application of fundamental keyboard techniques

to teaching and performance. Solo and ensemble playing of representative teaching and concert repertoire.

158a. HISTORY OF MUSIC. *Two hours credit.*

Prerequisites, Music 2a,b,c. The historical changes in music from earliest times to the end of the sixteenth century with emphasis on the changes in style.

158b. HISTORY OF MUSIC. *Two hours credit.*

Prerequisite, Music 158a. A study of historical changes which took place in music in the baroque period (1600-1750) and the classic period (1750-1800) with emphasis on changes caused by the new monodic style found in opera, and the beginnings of instrumental music.

158c. HISTORY OF MUSIC. *Two hours credit.*

Prerequisite, Music 158b. A study of the musical changes caused by the romantic, post-romantic and impressionistic periods from 1800 to 1920.

205. MELODY WRITING AND FORM. *Three or four hours credit.*

A course designed to give the student wide experience in melody writing and form study utilizing the traditional song forms, major and minor modes, pentatonic scale, Gregorian modes, and melodies patterned after other traditional styles, and art forms.

257. PHYSICS OF MUSIC INSTRUMENTS. *Three hours credit.*

The objectives of this course are to develop an understanding of the physical principles of sound and a study of the acoustical problems in music performance.

262. SYMPHONIC LITERATURE. *Three hours credit.*

A study of the literature for the symphony orchestra from the time of Haydn and Mozart to the writings of present-day composers, leading to an understanding and appreciation of the larger works in music.

270a. ADVANCED HARMONY AND FORM ANALYSIS. *Three or four hours credit.*

Prerequisites, Music 52a,b,c. Harmonization of melodies and review of figured bass deriving from a detailed study of Bach Chorales. Analysis and composition of small forms leading to a survey of homophonic forms. Altered chords, modulation, non-chordalism, and extension devices as exemplified in music of the classic and romantic periods.

270b. ADVANCED HARMONY AND FORM ANALYSIS. *Three or four hours credit.*

Prerequisite, Music 270a or its equivalent. A continuation of 270a with analysis and composition of the large forms. Further study of chromaticism with its resultant expansion of tonal resources as exemplified in nineteenth century music.

270c. ADVANCED HARMONY AND FORM ANALYSIS. *Three hours credit.*

Prerequisites, Music 270a, 270b or equivalent. Individual and group projects in composition, in conjunction with analysis of harmonic, stylistic, and formal aspects of large works. Techniques of contemporary idiom; study of changing forms in twentieth century music.

276. SURVEY OF AMERICAN MUSIC. *Three hours credit.*

A comprehensive study of the music of our country and the people who have produced it, tracing the development of vocal and instrumental music from the time of the Puritans and Pilgrims to today. Some topics are folk music, symphony orchestra, jazz, and new film music. For everyone, not musicians alone.

277. CHURCH MUSIC. *Three hours credit.*

This course gives a brief survey of music in the history of the Christian church. The philosophy of church music and its real function in worship is studied. The administration of the total music program in the church is outlined. Suitable materials for all occasions are evaluated and classified.

278. REPERTOIRE FOR SINGERS. *Three hours credit.*

This course is designed to familiarize vocal students with the main sources of vocal repertoire from the leading schools such as the Italian, German, French, English and American. Special emphasis is given to material that will be suitable for high school teaching. Songs will be analyzed and presented in the class by the students and recordings.

295. THE ART OF MUSIC LISTENING. *Three or four hours credit.*

A course designed to provide the layman with essential information about music, and to contribute to those understandings that will make him a more intelligent listener. Content of the course includes music in its relation to significant historical epochs, the relation of the arts, and the developing of a familiarity with many examples of standard music literature.

350. PRACTICAL ARRANGING. *Three or four hours credit.*

Prerequisite, Music 154. A project course in arranging for school instrumental and vocal groups. Projects include arranging for small ensembles in both standard and unusual combinations, transcription of parts to suit individual performers, and the composing and arranging of instrumental and vocal descants for the enrichment of song literature.

351. ADVANCED CONDUCTING. *Three or four hours credit.*

Prerequisites, Music 155a,b. A laboratory course in advanced problems of instrumental and choral conducting. Supervised conducting experience is provided.

360. HISTORICAL ANALYSIS OF MUSIC STRUCTURE. *Three or four hours credit.*

Prerequisites, Music 158a,b,c. A detailed study of the structure of music from the period of plain song to the works of Palestrina. A thorough study of the cadential, harmonic, melodic and rhythmic changes which take place in this period.

361. AESTHETICS AND CRITICISM. *Three or four hours credit.*

A study of the standard literature of aesthetics. A consideration of art in its relation to experience with specific reference to the function of music in an educational program.

362. SURVEY OF CONTEMPORARY MUSIC. *Three or four hours credit.*

Prerequisite, knowledge of traditional harmony. This course will consider contemporary music from the standpoint of new content, new media and new techniques of composition. Historically, the survey will begin with the breakdown of the tonal system in the late nineteenth century and continue with detailed analysis of works of composers of the twentieth century.

370. AURAL THEORY. (Summers only.) *Four hours credit.*

A study of an aural approach to the problems of pitch and rhythm in music, with special emphasis on its application to music reading problems encountered in elementary and secondary schools.

420. CRITERIA FOR MUSIC ANALYSIS AND COMPARISON. *Four hours credit.*

Music 420 is designed as an introductory course to acquaint the candidate with the subtleties of analytical and comparative music problems.

421. PRACTICUM IN ARRANGING AND PERFORMANCE. *Four hours credit.*

This course will deal with transcribing, editing, and performing of valuable music from unusable original forms to useful available material for pedagogic, historic and concert occasions. Stylistic practices will be given major consideration. Music of the Baroque and Pre-Baroque Eras will be the chief source of material.

MUSIC EDUCATION**h50. HONORS SEMINAR.** *No credit.*

A study of the problems of importance to honors students in a major division in special honors program to develop master teachers, and a study

of the characteristics of the master teacher and their implications for education of the honor student.

50a. INTRODUCTION TO MUSIC EDUCATION. *Two hours credit.*

Prerequisite, Music 2c. An introduction course for prospective teachers of music covering the place of music in the school program, recent trends in school music, the qualifications of the music teacher, and a consideration of beginning instructional problems.

50b. INTRODUCTION TO MUSIC EDUCATION. *Two hours credit.*

Prerequisite, Music 50a. A continuation of 50a. Methods and materials for the teaching of singing, music reading and related skills, music listening, and rhythm in the public school music program.

50c. INTRODUCTION TO MUSIC EDUCATION. *Two hours credit.*

Prerequisite, Music 50b. A continuation of 50b. A study of lesson planning, and classroom techniques in the teaching of music reading, appreciation, creative music, music listening, and rhythm. Techniques in conducting high school music activities.

149. MUSIC METHODS AND MATERIALS FOR ELEMENTARY TEACHERS. *Three hours credit.*

Prerequisite, Music 48a. A comprehensive methods course for the elementary classroom teacher covering the teaching of singing, rhythm, music reading, creative activities and music listening. A list of recorded music and song literature for each grade will be developed by the class. Grade placement of all aspects of the music program will be studied.

151. PRINCIPLES OF PIANO TEACHING. *Three hours credit.*

Prerequisite, early advanced piano skill. A laboratory course in piano teaching which includes piano readiness teaching procedure, observation and participation in individual and group piano lessons, diagnosis of specific problems, individual differences, recital planning and preparation, and establishment of criteria for the selection of teaching materials.

162a,b,c. INSTRUMENTAL TECHNIQUES AND CONDUCTING. *One hour credit each.*

Prerequisites, Music 2a,b,c; 51a,b,c; 52a,b,c. The techniques and practice of instrumental conducting. The development of hand and baton technique. Meter patterns, tempo, style, dynamics, musical terms, study and preparation of the musical score. Extensive experience in interpretation of materials using the laboratory band and orchestra.

165. TEACHING INSTRUMENTAL MUSIC. *Two hours credit.*

This course will endeavor (1) to present the various aspects of instrumental music in the public schools, both physical and musical; (2) to assist the student in making a systematic preparation for the task of developing a well rounded instrumental music program.

166a,b,c. CHORAL TECHNIQUES AND CONDUCTING. *One hour credit each.*

This course provides the student with supervised experience in choral conducting. Problems and techniques considered and applied are rehearsal procedures, voice production, diction, tone color, dynamics, intonation, the organization of the high school choral group, and literature for the chorus.

201. STAGE AND OPERA TECHNIQUES. (Summers only.) *Four hours credit.*

Study of proper selection of opera and operetta; its organization and procedures for casting and tryouts. Rehearsal procedures, scenery, lighting, costuming and makeup; advertising, tickets and programs, and other basics necessary to production of a public performance.

202. OPERA WORKSHOP. (Summers only.) *Three to eight hours credit.*

Workshop offering practical experience in production of a musico-dramatic show. Techniques of acting, singing, directing, and other facets necessary for preparation of a show for public performance will be offered.

210. MUSIC LITERATURE FOR ELEMENTARY GRADES. *Three or four hours credit.*

A course designed to further acquaint the classroom teacher and music supervisor with the music literature and instructional aids used in the elementary grades. Collections are made of: (1) songs; (2) rhythmic activities; (3) listening lessons; (4) elementary chorus selections; and (5) program and assembly materials. For both elementary classroom teachers and music supervisors.

211. IMPROVEMENT OF INSTRUCTION IN MUSIC READING. *Three or four hours credit.*

A complete analysis of the program in music reading in the elementary grades. Includes an evaluation of basic methods and materials, curriculum building in music reading, and a survey of published materials suitable for classroom use.

212. MUSIC ACTIVITIES FOR CLASSROOM TEACHERS. *Three or four hours credit.*

Activities in music for children requiring a minimum of musical skill on the part of the teacher. Includes a study of such activities as playing and reading music with simple melody instruments, the use of the autoharp for song accompaniment, the rhythm band, the construction of simple instruments, and the teaching of songs and rhythmic activities through the use of the phonograph.

214. CHORAL LITERATURE. *Three or four hours credit.*

A study of choral literature for high school and community groups. The mixed chorus, girls' glee club, boys' glee club, the small vocal ensemble, and literature for church choirs. All examples will be read by the class.

215. INSTRUMENTAL LITERATURE. *Three or four hours credit.*

A study of instrumental literature for school groups. The high school band and orchestra, materials for class and individual instruction, and small instrumental ensembles.

216. METHODS AND MATERIALS FOR CLASS VOICE INSTRUCTION. *Three or four hours credit.*

Organization of the voice class, a study of voice production problems, procedures and techniques such as posture, breath control, resonance, and interpretation through proper diction. Attention will be called to certain advantages to be gained through a class type of instruction.

217. METHODS AND MATERIALS FOR CLASS INSTRUMENTAL INSTRUCTION. *Three or four hours credit.*

A course designed to give the student practical experience in the organization and teaching of heterogeneous wind instrument classes. The course will stress the improvement of teaching methods and the creation of original materials for class work.

218a,b,c. MUSIC FOR CLASSROOM TEACHERS AND SUPERVISORS. *Three hours credit each.*

A series of three music workshop courses offered in succeeding Pre-Sessions. Some units of study are designed for the elementary classroom teacher; others for the music specialist. Included in the units of study are piano for classroom teachers, the elementary school choir, teaching music reading, the marching band, percussion techniques, etc.

220. INSTRUMENT REPAIR AND CARE. *Two hours credit.*

Study of the care and repair of band and orchestral instruments. Practical experience in instrument repairs which requires a minimum amount of equipment, skill and time.

223a. PRACTICUM IN BAND CONDUCTING AND PERFORMANCE. *(Summers only.) Four hours credit.*

Prerequisites, a satisfactory audition for the concert band; previous conducting experience. A laboratory course in advanced band conducting and performance. Supervised conducting experience under actual conditions is provided. Marching and football band performance will also be covered.

223b. PRACTICUM IN CHORAL CONDUCTING AND PERFORMANCE.
(Summers only.) *Four hours credit.*

Prerequisite, one year of successful choral teaching experience. A workshop course in advanced choral conducting and performance. Provides opportunity for supervised conducting, analysis of choral materials, problems of choral organization, a study of the literature of choral conducting and practices.

223c. PRACTICUM IN ORCHESTRAL CONDUCTING AND PERFORMANCE.
(Summers only.) *Four hours credit.*

Prerequisite, a satisfactory audition for the concert orchestra and previous conducting experience. A workshop course in advanced orchestral conducting and performance. Provides opportunity for supervised conducting, analysis of orchestral material, problems of organization, a study of the literature of orchestral conducting and practice.

241. MARCHING BAND TECHNIQUES. *Two hours credit.*

A workshop to provide materials and suggestions to band directors and prospective band directors. To assist with the planning of individual football shows and pageantry.

250. SEMINAR IN MUSIC EDUCATION. *Three or four hours credit.*

Prerequisites, Music 50a,b,c; Ed. 150e,f,g; Ed. 151. A course designed for seniors who have completed student teaching. Each student will work independently on a problem occurring in his student teaching work. The class will be conducted as a seminar with reports and discussion of the students' problems.

251. TEACHING SECONDARY SCHOOL MUSIC. (Summers only.) *Three or four hours credit.*

Prerequisites, Music 50a,b,c; Ed. 150, 151. A class in junior and senior methods and materials for advanced students and experienced teachers.

252a,b,c. TECHNIQUES AND REPERTOIRE FOR THE ACCOMPANIST.
Two hours credit each.

Prerequisite, pianistic skill not less than grade five. This course is designed to familiarize the piano student with the skills expected of an accompanist for (a) a chorus, (b) a solo voice, (c) a solo instrument. Special emphasis will be placed on the study of the styles of various periods and composers and the repertoire thereof.

256. PSYCHOLOGY OF MUSIC. *Three or four hours credit.*

The subjects included in this course are measurements of musical talent, tests and measurements in music, the psychology of musical listening and musical performance.

274. TEACHING MUSIC APPRECIATION. *Three or four hours credit.*

Prerequisites, Music 50c, Music 149, Ed. 150d, e. Developing a music listening program for schools covering methods of teaching, recorded materials and the construction of a graded program. The published recorded material suitable for both elementary and high school students is studied, as well as reference and textbooks dealing with music appreciation.

279b. ADMINISTRATION AND SUPERVISION OF THE MUSIC PROGRAM. *Three hours credit.*

A course designed to acquaint the school administration with the problems of the administration and supervision of the music program. The content includes the place of music in the school program, music equipment, schedule, budget, instructional problems, and public relations in music.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and techniques of research in the area of the graduate major. This course is required of all first-quarter graduate students who intend to receive the degree of Master of Arts.

305. SUPERVISING ELEMENTARY TEACHERS OF MUSIC. (Summers only.) *Four hours credit.*

Procedures for supervising the music program in the elementary grades,

cooperative curriculum building, planning courses of study and units of work, the induction of the beginning teacher, human relations, and in-service education of the classroom music teacher.

306. TEACHER EDUCATION IN MUSIC. (Summers only.) *Four hours credit.*

The teacher education program in music including both the pre-service and in-service education of the elementary classroom teacher, the teachers' college music curriculum, the administration of college music, the junior college, and the music program in general education.

310. PROBLEMS OF INSTRUMENTAL SUPERVISION. *Three hours credit.*

A discussion and study of the problems of instrumental supervision based upon an analysis of the professional problems found to exist in the field of teaching instrumental music.

311. IMPROVEMENT OF INSTRUCTION IN INSTRUMENTAL MUSIC. (Summers only.) *Four hours credit.*

A study of the instrumental approach in the development of pitch, rhythm, melody and sight reading. Special emphasis will be given to the development of instrumental performance and musicianship.

317a. INSTRUMENTAL TECHNIQUES AND MATERIALS (VIOLIN AND VIOLA). (Summers only.) *Four hours credit.*

Prerequisite, Music 193 or equivalent. A discussion and presentation of the methods used in both class violin and viola teaching and private lessons and a study of the materials used in class teaching. Continued proficiency in actual performance by the student.

317b. INSTRUMENTAL TECHNIQUES AND MATERIALS (CELLO AND BASS). (Summers only.) *Four hours credit.*

Prerequisite, Music 193. This course provides an opportunity for the graduate student to study the techniques of cello and string bass, to gain additional proficiency in playing, to study materials suitable for all levels of instruction, and to become familiar with the solo and small ensemble literature for these instruments.

317c. INSTRUMENTAL TECHNIQUES AND MATERIALS (WOODWINDS). (Summers only.) *Four hours credit.*

Prerequisite, Music 190, 195 or 197. This course provides an opportunity for the graduate student to study the techniques peculiar to instruments of the woodwind family; to gain additional proficiency in playing; to study teaching materials suitable for both individual and group instruction; and to become familiar with the standard solo and small ensemble literature for these instruments.

317d. INSTRUMENTAL TECHNIQUES AND MATERIALS (BRASS). (Summers only.) *Four hours credit.*

Prerequisite, Music 191 or 192. An advanced course in the techniques, theories and problems of teaching and playing brass instruments.

322. INDIVIDUAL STUDIES IN MUSIC. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

An opportunity for the graduate student to carry on a research project of his own choice under the supervision of a faculty representative.

323. COMPARATIVE VOICE METHODS AND MATERIALS. (Summers only.) *Four hours credit.*

A survey of the development of singing through the centuries, classifying the known theories and teaching concepts. Correlation of available sources of bibliographic information provides a core of organized information and orientation for research in this and related fields. Each student takes one private lesson per week.

324. COMPARATIVE STRING METHODS AND MATERIALS. (Summers only.) *Four hours credit.*

Prerequisite, Music 32. A comparison of the materials used in violin teaching. The various methods for student requirements as they apply to individual cases:

325. COMPARATIVE PIANO METHODS AND MATERIALS. (Summers only.) *Four hours credit.*

A review of past and present piano methods, combined with the fundamentals of piano teaching and playing. Demonstrations of methods and techniques. Private lessons are required.

399. THESIS. *Eight hours credit.*

A regular or creative thesis may be written in the Music Division.

401. RESEARCH SEMINAR IN MUSIC EDUCATION. (Summers only.) *Four hours credit.*

Analysis of studies in music education; writing and research techniques for dissertations and field studies; a survey of critical problems in music education; the preparation of the research outline.

402. FOUNDATIONS OF MUSIC EDUCATION. (Summers only.) *Four hours credit.*

A critical analysis of instructional procedures in teaching aural, rhythmic, and theoretical concepts in music. A study of philosophical, psychological, and sociological backgrounds of education as related to the arts. Symposium of advanced graduate students and music education faculty in addition to the regularly scheduled class meetings.

MUSIC ACTIVITIES**21. INSTRUMENTAL ENSEMBLES.** *One hour credit per quarter.*

Instrumental ensembles include woodwind quartet, string quartet, string trio, and brass ensemble. Groups organized are based upon the talents and interests of the students.

22. VOCAL ENSEMBLES. *One hour credit per quarter.*

Vocal ensembles include men's glee club, women's glee club, trios, and quartets. Groups organized are based upon the talents and interests of the students.

140. VARSITY BAND. *One hour credit per quarter.*

Open to all students, regardless of major, who have had high school band experience. To provide music for athletic events and college functions. To read material suitable for use by high school bands.

141. MARCHING BAND. *One hour credit per quarter.*

Open to all students, regardless of major field, who have had high school band experience. A study and practice of the fundamentals of drill and presentation of marching maneuvers and pageants at athletic events. Satisfies physical education requirement for Fall quarter.

142. SYMPHONY ORCHESTRA. *One hour credit per quarter.*

The standard orchestral literature is performed. The materials used in high school organizations are thoroughly discussed with special emphasis devoted to contest and festival programs.

143. CONCERT BAND. *One hour credit per quarter.*

Open to all students who demonstrate sufficient ability to study, rehearse, and present advanced forms of concert and symphonic band literature.

144. MIXED CONCERT CHOIR. *One hour credit per quarter.*

Prerequisites, previous musical experience and a suitable voice. The concert choir is made up of selected voices. The choir is open to all students in the college. Its purpose is to sing the best in choral literature, both a cappella and accompanied, oratorio, masses and operatic literature.

145. MEN'S CONCERT CHOIR. *One hour credit per quarter.*

Open to all men who wish to participate in the singing of men's glee club music.

146. WOMEN'S CONCERT CHOIR. *One hour credit per quarter.*

Open to all women who wish to participate in the singing of women's glee club music.

147. CHORAL-AIRES. *One hour credit per quarter.*

Open to all students, regardless of major field. Members are chosen for ability to fit into highly selective vocal group. A study and practical application of complete range of choral literature, programming and staging techniques for the vocal ensemble. Presentation of public performances throughout the school year. Acceptance by audition only.

148. MADRIGAL SINGERS. *One hour credit per quarter.*

A small performance group, composed of singers, selected because of suitability of voice and musicianship, to sing music of the madrigal period and type.

161a,b,c. LABORATORY ORCHESTRA. *One hour credit each.*

A laboratory course to provide practice orchestra experience on stringed instruments. Orchestral materials and the use of them for continued development of string students will be discussed and demonstrated.

163a,b,c. LABORATORY BAND. *One hour credit each.*

A laboratory group designed to give the prospective instrumental director an opportunity to survey materials for high school instrumental groups, instrumental techniques on the high school level, and conducting under supervision. This is also a course strongly recommended for vocal majors.

164a,b,c. LABORATORY CHOIR. *One hour credit each.*

A laboratory group designed to give the prospective choral director an opportunity to survey materials for high school choral groups, vocal techniques for high school, choral reading experience, and conducting under supervision. A course strongly recommended for instrumental majors.

INSTRUCTION IN MUSIC PERFORMANCE**10a,b,c. BEGINNING CLASS PIANO.** *One hour credit each.*

This is a course designed to fit the needs of the music major who does not have a background in piano. This includes reading skills, technique, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

11a,b,c. BEGINNING STRING INSTRUCTION. *One hour credit each.*

A study, through performance, of the problems of string playing and the available literature for teaching classes in heterogeneous and homogeneous groups so that the student will be able, upon graduation, to establish string classes with full knowledge of the problems of string playing and their solution.

20a,b,c. INTERMEDIATE CLASS PIANO. *One hour credit each.*

This is a course in functional piano designed to fit the needs of the music major who has a slight background in piano. In this course is included the teaching of reading skills, techniques, and style necessary to the playing of simple accompaniments, community songs and other piano music used in the public schools.

30-36. INDIVIDUAL INSTRUCTION. *One hour credit per quarter.*

The Division of Music offers an opportunity for the student to study voice or any major instrument individually with a studio teacher. Such instruction normally provides for one lesson each week. Practice facilities including both the rental of practice rooms and instruments are available.

30. INDIVIDUAL INSTRUCTION IN VOICE.**31. INDIVIDUAL INSTRUCTION IN PIANO.****32. INDIVIDUAL INSTRUCTION IN STRINGED INSTRUMENTS.**
*Violin, viola, cello, bass.***33. INDIVIDUAL INSTRUCTION IN ORGAN.****34. INDIVIDUAL INSTRUCTION IN PERCUSSION INSTRUMENTS.****35. INDIVIDUAL INSTRUCTION IN WOODWIND INSTRUMENTS.**
Flute, clarinet, oboe, English horn, bassoon.

36. INDIVIDUAL INSTRUCTION IN BRASS INSTRUMENTS.

Trumpet, French horn, trombone, baritone, tuba.

190. CLARINET CLASS. One hour credit.

To develop a teaching knowledge of the clarinet family, their specific problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature and to develop sufficient skill to demonstrate the clarinet.

191. TRUMPET CLASS. One hour credit.

A concentrated course in trumpet to develop a teaching knowledge of the instrument and to develop enough playing skill to demonstrate good tone, technique, and breath control.

192. BRASS CLASS. One hour credit.

To develop a teaching knowledge of brass instruments. To acquire sufficient skill for purposes of demonstration.

193. STRING CLASS. One hour credit.

To develop a teaching knowledge of the characteristics of the strings, their resources, their difficulties and how best to overcome them. To study the basic principles of string performance and to acquire some technical facility by daily practice.

194. PERCUSSION CLASS. One hour credit.

To develop a teaching knowledge of percussion instruments, their possibilities, their functions, their difficulties and how to best overcome them, to acquire sufficient skill for purposes of demonstration.

195. DOUBLE REED CLASS. One hour credit.

To develop a teaching knowledge of the oboe and bassoon, their individual problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature, to develop an understanding of the reed and to acquire sufficient skill to demonstrate these instruments.

196. VOICE CLASS. One hour credit.

For beginning voice students, particularly elementary majors and majors in instrumental music. Course includes fundamentals of singing, interpretation and solo repertoire.

197. FLUTE AND SAXOPHONE CLASS. One hour credit.

To develop a teaching knowledge of the flute and saxophone, their individual problems, their functions, and their possibilities. To acquaint the prospective teacher with the pedagogic and concert literature, to develop an understanding of the problems of tone production and to acquire sufficient skill to demonstrate these instruments.

Division of the Sciences

The Division of the Sciences includes the fields of General Science, Biology, Botany, Chemistry, Earth Science, Mathematics, Physics, Science Education, and Zoology. Degrees and majors and minors offered are:

BACHELOR OF ARTS DEGREE (with teaching certificate)

Majors: Biological Science, Chemistry, Physical Science, Mathematics, and Science.

Minors: Chemistry, Earth Science, Elementary Science, General Science (for Home Economics majors only), Biological Science, Mathematics, and Physics.

BACHELOR OF ARTS DEGREE (liberal arts)

Majors: Biological Science, Chemistry, Physical Science, Mathematics, Medical Technology.

Minors: Biological Science, Chemistry, Earth Science, Elementary Science, General Science (for Home Economics majors only), Mathematics, Medical Technology Minor in Chemistry, and Physics.

MASTER OF ARTS DEGREE (with teaching certificate)

Majors: Mathematics, Biological Science, Physical Science, Science Education.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (with teaching certificate)

Area of Concentration: Science Education.

Supporting Areas: Mathematics Education, Science.

SCIENCE MAJOR (With Concentration in Biological Science)

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Biol. 51	- - Human Biology - - - - -	5
Bot. 22	- - General Botany - - - - -	5
Bot. 23	- - General Botany - - - - -	5
Chem. 40a	- - Principles of Chemistry I (5 hours) - - -	
Chem. 40b	- - Principles of Chemistry II (5 hours) - - -	
Chem. 40c	- - Introductory Organic Chemistry (5 hours) -	

or

Phys.	61	- -	General Physics—Mechanics and Heat (5 hours)	- - - - -	5
Phys.	62	- -	General Physics—Electricity (5 hours)	- - - - -	5
Phys.	63	- -	General Physics—Sound, Light and Atomic Physics (5 hours)	- - - - -	15
Zool.	11	- -	General Zoology—Invertebrate	- - - - -	5
Zool.	12	- -	General Zoology—Vertebrate	- - - - -	5
Biol. (electives to be selected with approval of student's adviser)				- - - - -	8
					48

3. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics, otherwise it must be outside of the division.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation. It is recommended that a Science major graduate with 15 quarter hours in Chemistry, 15 quarter hours in Physics, 10 quarter hours in Botany, 10 quarter hours in Zoology and 5 quarter hours in Human Biology.

Biological Science Minor

<i>Course Number</i>		<i>Course Title</i>		<i>Hours Credit</i>	
Biol.	51	- -	Human Biology	- - - - - 5	
Bot.	22	- -	General Botany	- - - - - 5	
Bot.	23	- -	General Botany	- - - - - 5	
Zool.	11	- -	General Zoology—Invertebrate	- - - - - 5	
Zool.	12	- -	General Zoology—Vertebrate	- - - - - 5	
Biology Electives				- - - - - 2	
					27

Electives must be selected from: Biology 257, Conservation of Natural Resources; Biology 258, Field Biology; Biology 251, Evolution; Biology 252, Genetics and Eugenics; Botany 122, General Bacteriology; Zoology 216, Physiology of Narcotics and Stimulants; Zoology 217, Human Physiology.

Earth Science Minor

<i>Course Number</i>		<i>Course Title</i>		<i>Hours Credit</i>	
Earth Sci.	130	- -	General Meteorology	- - - - - 3	
Earth Sci.	131	- -	Descriptive Astronomy	- - - - - 3	
Earth Sci.	231	- -	Physical Geology	- - - - - 4	
Earth Sci.	232	- -	Historical Geology	- - - - - 4	
Earth Sci.	233	- -	Mineralogy	- - - - - 4	
Electives (to be selected with approval of student's minor adviser)				- - - - - 9	
					27

Elementary Science Minor

<i>Course Number</i>		<i>Course Title</i>		<i>Hours Credit</i>	
Sci.	109	- -	Science for Elementary Teachers	- - - - - 3	
Sci.	203	- -	Natural Science for Childhood Education	- - - - - 4	
Sci.	205	- -	Physical Science Concepts for Elementary Teachers	- - - - - 4	
Sci.	206	- -	Earth Science Concepts for Elementary Teachers	- - - - - 4	
Sci. Ed.	271	- -	Improvement of Science Instruction in the Elementary School	- - - - - 4	
Biology	51	- -	Human Biology	- - - - - 5	
Science Electives				- - - - - 3	
					27

Electives must be selected from: Biology 251, Evolution; Biology 257, Conservation of Natural Resources; Biology 258, Field Biology; Earth Science 130; General Meteorology; Earth Science 131, Descriptive Astronomy; Science 20, General Anthropology; Science 30, Science Concepts for Elementary Grades; Science 208, Elementary Science Workshop; Zoology 114, Ornithology.

Science Minor for Home Economic Majors

This minor consists of three or four quarters of chemistry and bacteriology (Botany 122) and electives with approval of adviser to complete 27 hours.

SCIENCE MAJOR (With Concentration in Physical Science) Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Chem. 40a	Principles of Chemistry I	5
Chem. 40b	Principles of Chemistry II	5
Chem. 40c	Introductory Organic Chemistry	5
Phys. 61	General Physics—Mechanics and Heat	5
Phys. 62	General Physics—Electricity	5
Phys. 63	General Physics—Sound, Light, and Atomic Physics	5
Biol. 51	Human Biology	5
Bot. 22	General Botany (5 hours)	-
Bot. 23	General Botany (5 hours)	-
<i>or</i>		
Zool. 11	General Zoology—Invertebrate (5 hours)	-
Zool. 12	General Zoology—Vertebrate (5 hours)	10
Phys. Sci. (electives to be selected with approval of student's adviser)		3
		48

3. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics, otherwise it must be outside of the Division.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation. It is recommended that a Science major graduate with 15 quarter hours in Chemistry, 15 quarter hours in Physics, 10 quarter hours in Botany, 10 quarter hours in Zoology, and 5 quarter hours in Human Biology.

CHEMISTRY MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
Chem.	142	Organic Chemistry	5
Chem.	144	Qualitative Analysis	5
Chem.	145	Quantitative Analysis	5
Chem.	243	Advanced Organic Chemistry	5
Chem.	246	Advanced Quantitative Analysis	5
Phys.	61	General Physics—Mechanics and Heat	5
Phys.	62	General Physics—Electricity	5
Phys.	63	General Physics—Sound, Light, and Atomic Physics	5
Chemistry (electives to be selected with approval of student's adviser)			8
			48

3. One minor of 27 quarter hours. It is recommended that this minor be in Mathematics, otherwise it must be outside of the division.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

**SCIENCE MAJOR (Junior High School Level)
Bachelor of Arts Degree (With Teaching Certificate)**

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
Bot.	22	General Botany	5
Bot.	23	General Botany	5
Chem.	40a	Principles of Chemistry I	5
Chem.	40b	Principles of Chemistry II	5
Phys.	61	General Physics—Mechanics and Heat	5
Phys.	62	General Physics—Electricity	5
Zool.	11	General Zoology—Invertebrates	5
Zool.	12	General Zoology—Vertebrate	5
Earth Sci.	236	General Geology (If an Earth Science Minor is elected, select an additional four hours elective in place of Earth Sci. 236)	4
		Electives*	4
			48

*Select a minimum of 4 hours from the following courses: Biol. 51; Bot. 122; or Chem. 40c.

3. One minor of 27 quarter hours.

4. Sufficient free electives to complete 180 quarter hours of academic credit required for graduation.

Other courses recommended for adequate preparation in the junior high school science area:

<i>Course Number</i>		<i>Course Title</i>	<i>Hours Credit</i>
Phys.	63	General Physics—Sound, Light and Atomic Physics	5
Earth Sci.	231	Physical Geology	4
Earth Sci.	232	Historical Geology	4
Earth Sci.	130	General Meteorology	3
Earth Sci.	131	Descriptive Astronomy	3
Biol.	251	Evolution	3

Biol.	257	- -	Conservation of Natural Resources	- - - -	4
Zool.	217	- -	Human Physiology	- - - - -	4
Biol.	252	- -	Genetics and Eugenics	- - - - -	5

Chemistry Minor

<i>Course Number</i>		<i>Course Title</i>		<i>Hours</i>	<i>Credit</i>
Chem.	40a	- -	Principles of Chemistry I	- - - - -	5
Chem.	40b	- -	Principles of Chemistry II	- - - - -	5
Chem.	40c	- -	Introductory Organic Chemistry	- - - - -	5
Chemistry (electives to be selected with approval of student's adviser)					12
					<hr/> 27

Physics Minor

<i>Course Number</i>		<i>Course Title</i>		<i>Hours</i>	<i>Credit</i>
Phys.	61	- -	General Physics—Mechanics and Heat	- - -	5
Phys.	62	- -	General Physics—Electricity	- - - - -	5
Phys.	63	- -	General Physics—Sound, Light, and Atomic Physics	- - - - -	5
Physics (electives to be selected with approval of student's adviser)					12
					<hr/> 27

CHEMISTRY MAJOR

Bachelor of Arts Degree (Liberal Arts)

The following program is required: (1) Common Courses listed on page 48; (2) At least 48 quarter hours in Chemistry and Physics as listed in the preceding section under Bachelor of Arts degree (with teaching certificate); (3) A mathematics minor of 27 quarter hours (through calculus); (4) Electives to complete requirements for graduation. It is recommended that a full year of physical chemistry be included together with organic qualitative analysis and a year of biological science or geology. Programs must be planned with the student's adviser.

SCIENCE MAJOR (With Concentration in Biological Science) Bachelor of Arts Degree (Liberal Arts)

The following program is required: (1) Common Courses listed on page 48; (2) At least 48 quarter hours in Science as listed in the preceding section under Bachelor of Arts degree (with teaching certificate); (3) One minor of 27 quarter hours preferably in Mathematics; (4) Electives to complete requirements for graduation. Programs must be planned with the student's adviser.

SCIENCE MAJOR (With Concentration in Physical Science) Bachelor of Arts Degree (Liberal Arts)

The following program is required. (1) Common Courses listed on page 48; (2) At least 48 quarter hours in Science as listed in the preceding section under Bachelor of Arts degree (with teaching certificate); (3) One minor of 27 quarter hours preferably in Mathematics; (4) Electives to complete requirements for graduation. Programs must be planned with the student's adviser.

Description of Courses

GENERAL SCIENCE

3. PHYSICAL SCIENCE. *Three hours credit.*

The study of physical science principles of atomic structure, nuclear energy, the electromagnetic radiations and their social implication in modern civilization. Designed to help the student to develop correct concepts about the world in which he lives.

4. BIOLOGICAL SCIENCE. *Three hours credit.*

The study of important general concepts of the nature of life. Prepared especially to help students in understanding the nature of the human body and its reactions to its changing environment.

5. EARTH SCIENCE. *Three hours credit.*

Units of study are organized to help students develop a better understanding and appreciation of their environment. Basic concepts are developed concerning the Universe, the Earth, and its materials and landscapes, and finally the weather.

§20. GENERAL ANTHROPOLOGY. (Credit may be obtained in Social Studies or Science.) *Five hours credit.*

For description of this course, see page 209.

30. SCIENCE CONCEPTS FOR ELEMENTARY GRADES. *Four hours credit.*

The course is divided into three parts: (1) An analysis of five elementary science programs; (2) Science concepts for elementary teachers from the areas of living things, human body, earth, universe, matter-energy; (3) Concepts for each grade level of the elementary science program. Students evaluate textbooks, textbook series, current new films, slides, and film strips in reference to the development and grade placement of concepts.

h50. HONORS SEMINAR. *No credit.*

A study of the problems of importance to honors students in a major division in the special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

109. SCIENCE FOR ELEMENTARY TEACHERS. *Three hours credit.*

A subject matter course for elementary majors presenting science concepts and information for elementary teachers. Areas may include light, heat, sound, simple machines, microscopic study of plant and animal life and the interrelationships of things to the physical environment.

203. NATURAL SCIENCE FOR CHILDHOOD EDUCATION. *Three or four hours credit.*

The content includes a study of animal and plant forms of life of functional value to children. Films, field work and museum work are resource materials used in this course as well as literature appropriate to the age of the child.

205. PHYSICAL SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS. *Four hours credit.*

The fundamental concepts of physical science are presented to provide a background for the teaching of physical science in the elementary school.

206. EARTH SCIENCE CONCEPTS FOR ELEMENTARY TEACHERS. *Four hours credit.*

The fundamental concepts in earth science, selected from astronomy, geology, and meteorology are presented to provide a background for the teaching of earth science in the elementary school.

207. AVIATION EDUCATION WORKSHOP. (Summers only.) *Three hours credit.*

The purpose of this course is to provide the elementary and secondary teacher with a general background in aviation and an understanding of

the air age. Subject matter will include the elementary phases of aircraft and rocket development, of maps, weather, navigation, airways traffic control, theory of flight, air power, and aviation in education.

208. ELEMENTARY SCIENCE WORKSHOP. (Summers only.) *Three hours credit.*

This course provides the opportunity for public school groups or individual teachers to organize outlines for elementary science programs to fit their respective needs. Aid is provided for the selection of appropriate content through visual aids and field trips to acquaint teachers with the environment. Also, some consideration is given to the selection of learning materials.

209. AVIATION AND SPACE FLIGHT FOR TEACHERS. *Four hours credit.*

A non-technical course in the subject matter of elementary aviation. These include units on maps and charts, weather, navigation, theory of flight, problems of space flight, and the social significance of the air age. Some attention given to methods and materials. Units studied selected by class.

§220. WORLD ETHNOLOGY. (Credit may be obtained in Social Studies or Science.) *Three hours credit.*

For description of this course, see page 209.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and techniques of research in the area of the graduate major. This course is required of all first-quarter graduate students who intend to receive the degree of Master of Arts.

322. INDIVIDUAL STUDIES. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Qualified students outline a definite problem and carry out its solution. Two typewritten copies of a well-written paper must be filed before credit is given, one with the instructor who directs the study and one with the Dean of the Graduate Division. Credit may be earned in the fields of Biological Science, Physical Science, Science Education, or Mathematics.

330. GRADUATE READINGS COURSE IN SCIENCE. *Four hours credit.*

The required reading in several areas of science will consist of books written for the adult lay reader. Designated books will be required and a recommended supplementary reading list will be supplied. Each book will be the basis for discussion and comment for approximately three periods.

399. THESIS. *Eight hours credit.*

SCIENCE EDUCATION

270. TEACHING SCIENCE IN THE ELEMENTARY SCHOOL. *Four hours credit.*

The student's purpose for this course is to acquire the knowledge of objectives, materials, and methods which he will need as a teacher for preparing learning activities and answering children's questions in a functional elementary science program. Laboratory activities included.

271. IMPROVEMENT OF SCIENCE INSTRUCTION IN THE ELEMENTARY SCHOOL. *Four hours credit.*

A study, evaluation, and comparison of several programs suggested for elementary science by various authorities and groups of science educators. Opportunity is provided for students to plan programs and study the reorganization of elementary science curriculums to achieve the objectives of science.

272. IMPROVEMENT OF SCIENCE INSTRUCTION IN THE SECONDARY SCHOOL. *Four hours credit.*

An evaluation of several programs suggested for secondary school science by authorities and science educators. Students may study the reorganiza-

tion of secondary curriculums and plan programs to achieve objectives. The program will include a statement of the students' philosophy, objectives, and generalizations appropriate for teaching content.

274a. EXPERIMENTAL PHYSICAL SCIENCE FOR HIGH SCHOOL SCIENCE TEACHERS. *Four hours credit.*

Prerequisite, a knowledge of physics and chemistry. This course gives the junior and senior high school teacher, the general science teacher, and the prospective teacher in these subjects an opportunity to work with physical science equipment and organize the laboratory work for learning activities.

274b. PROBLEMS IN TEACHING BIOLOGY. (Summers only.) *Three hours credit.*

Prerequisite, permission of the teacher. The course deals with the organization of biological units, teaching procedures, and evaluation of learning. Preparation of teaching materials and organizations of lessons are included. Evaluation of present practices will be accomplished in terms of criteria that foster general education in a secondary school program.

274c. PROBLEMS IN TEACHING CHEMISTRY. *Four hours credit.*

Prerequisite, permission of instructor. This course is designed to deal with special problems in the teaching of chemistry. This includes elementary concepts, laboratory and stockroom problems, and demonstrations.

275. ELEMENTARY OR SECONDARY SCIENCE LESSON DEMONSTRATIONS. *Four hours credit.*

A course in which elementary or secondary science concepts are demonstrated and explained. The students then teach these lessons to their own classes and return an evaluation of them. This is an in-service course; the school system is asked to supply the necessary apparatus and materials used by the teacher.

276. SPECIAL PROBLEMS IN TEACHING SCIENCE. *Four hours credit.*

The study, writing and practice of special instructional problems in teaching science in the elementary and secondary schools. The instructional problems include the teaching of problem solving, scientific attitudes, and controversial issues.

373. SEMINAR IN SCIENCE EDUCATION. *Four hours credit.*

Elementary and secondary school science teachers who wish to improve their professional work may elect this course. The problems studied in the course are those that concern the professional science educator.

375. DEVELOPMENT OF SCIENTIFIC INQUIRY OF CHILDREN IN SCIENCE. (Summers only.) *Four hours credit.*

The course emphasizes the psychological processes and learning activities necessary for the development of an individual's scientific inquiry abilities.

BIOLOGY

51. HUMAN BIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

The course prepares teachers to teach biology. The laboratory study is concerned with the study of cellular morphology of human tissues. The class instruction places emphasis on body adaptations through structure, for reacting and adjusting the whole individual to his environment.

§157. PRINCIPLES OF CONSERVATION. (Credit may be obtained in Science or Social Studies.) *Four hours credit.*

This course is organized upon the concepts of soil conservation, water conservation, forest conservation, wildlife conservation and the conservation of our diminishing mineral resources. Primarily for elementary teachers.

205a. BIOLOGICAL BASIS OF HUMAN BEHAVIOR—MORPHOLOGY.
Three hours credit.

A study of morphological structure of cells that affect behavior together with related biochemical and biophysical bases for individuality constitutes the course. The study of tissues is the nucleus about which laboratory and lecture work is organized.

205b. BIOLOGICAL BASIS OF HUMAN BEHAVIOR—PHYSIOLOGY.
Three hours credit.

A course designed to interpret human behavior on a physiological basis. The physiology of cells, tissue, organs, and systems are considered in that order. The nervous system and the endocrine system are given special consideration in this course.

205c. BIOLOGICAL BASIS OF HUMAN BEHAVIOR—HEREDITY.
Three hours credit.

This course explains the hereditary basis of human behavior. It deals with the Mendelian laws and other phenomena of the genetics of plants, animals, and man and includes present hereditary trends in the human race.

251. EVOLUTION. *Three hours credit.*

Lamarck's Theory of use and disuse to the modern-day synthesis concepts of evolution are considered. The cause and effect relationships of the origin of variation; the evidences for evolution, and the origin and distribution of species are some other phases of evolution studied.

252. GENETICS AND EUGENICS. *Three hours credit.*

Prerequisite, Science 4 or equivalent. A study of the fundamental laws of heredity and their application to plants and animals, with emphasis on the heredity of man and the present trends of the human race. (Two hours lecture, two hours laboratory.)

§257. CONSERVATION OF NATURAL RESOURCES. (Credit may be obtained in Science or Social Studies.) *Four hours credit.*

A study of the relation of natural resources to the development of man and his culture. Units of study are organized on soil, water, forests and forest products. Range management, wildlife, and mineral resources are also treated. The emphasis throughout is on their relation to man.

258. FIELD BIOLOGY. *Three hours credit.*

A natural history course for elementary and secondary school teachers. The course deals with the identification of common plants, animals and rocks, the relationship of the plants and animals to their environment. Frequent field trips, including one to the higher mountains, are required.

259. RADIATION BIOLOGY. *Three hours credit.*

Prerequisites, college physics, general chemistry, and eight hours of biological science. An introductory course which deals with the basic physical, chemical, and biological principles upon which the study of biological effects of radiation are based. Lecture and demonstration.

BOTANY

22. GENERAL BOTANY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A study of seed plants, the conifers and flowering plants, their structure and functions, economic aspects and classification.

23. GENERAL BOTANY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

A survey of the plant kingdom including the life cycles, habitats, relationships and evolutionary aspects of the great groups of plants, the algae, fungi, mosses, liverworts, ferns, conifers and flowering plants. Economic relationships are also emphasized.

122. GENERAL BACTERIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Sci. 4. The course emphasizes the control measures used for microorganisms and the basic information pertaining to morphology and growth characteristics. The content is organized about important personal and community health problems.

220. ECONOMIC BOTANY. (Summers only.) *Two hours credit.*

Prerequisite, Bot. 22 or 23 or equivalent. A study of plants that affect the welfare of man with special emphasis upon non-agricultural plants.

225. INTRODUCTION TO PLANT ECOLOGY. (Summers only.) *Two hours credit.*

Prerequisite, Bot. 22 or 23, or equivalent. The principles governing plant community relationships and the distribution of plant communities. Classroom discussion supplemented with field work.

226. PLANT HISTOLOGY AND BOTANICAL TECHNIQUES. *Four hours credit.*

Prerequisites, Bot. 22 and 23 or equivalent. Study of plant tissues and methods of killing, imbedding, sectioning, staining and making botanical material into permanent microscopic mounts. The class will meet two hours a day, four days a week.

227. SYSTEMATIC BOTANY. *Five hours credit.*

Prerequisite, Bot. 22, or equivalent. A survey of flowering plants and the families commonly met with in native and cultivated floras. Practice is obtained in identification with the key and by sight. Field trips are required. Should precede Plant Ecology. The class will meet two hours a day, five days a week.

228. PLANT DISEASES. *Four hours credit.*

Prerequisites, Bot. 22 and 23, or equivalent. A study of the groups of fungi, their structures, life cycles, habitats and nutrition, with emphasis upon those which cause diseases in higher plants.

320. PLANT GROWTH AND DEVELOPMENT. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, Bot. 22 and 23. A study of the growth cycle of plants in the laboratory and field including the effects of external and internal factors. Curvatures and movements of plants will be considered, as well as the practical problems connected with herbicides and other chemical treatments.

321. PLANT PHYSIOLOGY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Bot. 22 or equivalent, and Chem. 142 or equivalent. A course dealing with the fundamental principles of absorption of water and minerals, transpiration, photosynthesis, translocation, respiration and growth of plants, including biochemical mechanisms.

328. PLANT ECOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, Bot. 22 and 23. A study of plant communities and the interrelationships of the organisms therein as they are affected by the physical factors of the environment.

330. BOTANICAL SEMINAR. *One hour credit.*

Assigned reports on current botanical topics.

CHEMISTRY**40a. PRINCIPLES OF CHEMISTRY I.** *Five hours credit. (Four hours lecture, two hours laboratory.)*

This course introduces the student to the principles of chemistry together with some descriptive chemistry to illustrate these principles. It is designed for science majors and minors, home economics students, as well as for pre-professional curriculums.

40b. PRINCIPLES OF CHEMISTRY II. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 40a or consent of instructor. This course is a continuation of the principles of chemistry together with the descriptive chemistry necessary to illustrate these principles. It is designed for the same group of students as Chem. 40a and is necessary to provide a reasonably complete understanding of the basic concepts of chemistry.

40c. INTRODUCTORY ORGANIC CHEMISTRY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 40b or consent of instructor. This course provides an elementary introduction to organic chemistry, including some of the many applications in such fields as food, drug, plastic, dye, and vitamin chemistry.

142. ORGANIC CHEMISTRY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 40c or consent of instructor. The chemistry of the carbon compounds of the aliphatic and aromatic series is discussed. Application to the fields of nutrition and industry is stressed.

144. QUALITATIVE ANALYSIS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisites, Chem. 40b or consent of instructor, Math. 76 or Math. 78b, or equivalent. In this course the student is introduced to analytical theory and the methods of detection of common ions. The laboratory work illustrates the class discussion.

145. QUANTITATIVE ANALYSIS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 144. This course provides a discussion of quantitative procedures as well as continued emphasis on analytical theory. The methods of volumetric and gravimetric analysis are applied to common substances in the laboratory.

148. FOOD ANALYSIS. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Chem. 40c. This course deals with some of the techniques of qualitative and quantitative analysis of foods for certain inorganic and organic constituents.

240a,b,c. MODERN CHEMISTRY. *Three hours credit each. (Offered only by TV.)*

Prerequisites, high school algebra, course in college chemistry. Required televiewing the Continental Classroom presented by Dr. John F. Baxter. Topics included—classification of matter, kinetic theory of gases, atomic structure, chemical binding, acid-base phenomena, chemical equilibrium, and the periodic arrangement of the elements.

242. ORGANIC CHEMISTRY. (Summers only.) *Four hours credit. (Four hours lecture, three hours laboratory.)*

Prerequisite, Chem. 40a. A beginning course in organic chemistry for students with no previous background in organic chemistry. Some of the fundamental types of aliphatic and aromatic organic compounds are treated with regard to theory and application.

243. ADVANCED ORGANIC CHEMISTRY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Chem. 142. This course is a continuation of Chem. 142. These homologous series of aliphatic and aromatic compounds not treated in Chem. 142 are discussed in the light of modern theories.

244. LABORATORY IN ORGANIC CHEMISTRY. *One or two hours credit by arrangement. (Two or four hours laboratory.)*

Prerequisite, Chem. 142. Organic preparations and qualitative organic analysis constitute the laboratory work.

245. QUANTITATIVE ANALYSIS. (Summers only.) *Four hours credit.*
(*Three hours lecture, six hours laboratory.*)

Prerequisites, Math. 20a, Chemistry 40b. Lectures treat the equilibria existing in solutions of acids, bases, and slightly soluble salts, and the application of such equilibria to gravimetric and acid-base and volumetric precipitation analysis. Laboratory work consists of work illustrating these three types of analysis. Students having credit in any quantitative analysis course must obtain permission of instructor before enrolling in this course.

246. ADVANCED QUANTITATIVE ANALYSIS. *Five hours credit.*
(*Three hours lecture, four hours laboratory.*)

Prerequisite, Chem. 145. Special attention is given to the analysis of complex mixtures, and the use of certain analytical instruments.

247. BIOCHEMISTRY. *Five hours credit.* (*Three hours lecture, four hours laboratory.*)

Prerequisite, Chem. 40c. An introduction to the chemistry of foods, nutrition, and body processes is given.

249. ADVANCED INORGANIC CHEMISTRY. *Four hours credit.* (*Three hours lecture, two hours laboratory.*)

Prerequisite, Chem. 145. This course is designed to bridge the gap between Analytical Chemistry and Physical Chemistry. The course will include units on atomic structure, radio-chemistry and instrumental analysis. Laboratory work will be instrumental analysis.

291. STRUCTURE OF MATTER. *Five hours credit.*

Prerequisites, Chemistry 40a,b,c or equivalent. This course on modern concepts of the structure of matter begins with the structure of atoms emphasizing the electron orbitals. The ways in which atoms combine by formation of electrovalent, covalent, and metallic bonds together with the effect of bond types on the physical and chemical characteristics of matter is presented.

292. FUNDAMENTALS OF ORGANIC CHEMISTRY. *Four hours credit.*
(*Four hours lecture, three hours laboratory.*)

This course is introductory to the chemistry of carbon. The nomenclature of carbon compounds, the common functional groupings, the chemical characteristics of these groupings together with their modern theoretical aspects are studied.

293. INTRODUCTORY QUANTITATIVE ANALYSIS. *Four hours credit.*
(*Four hours lecture, three hours laboratory.*)

Prerequisites, Math. 20a, Chem. 40b. Lecture and laboratory work will treat the general topics of elementary gravimetric analysis, acid-base titrimetric analysis and complexometric titrimetric analysis.

341. PHYSICAL CHEMISTRY I. *Five hours credit.* (*Four hours lecture, two hours laboratory.*)

Prerequisites, Chem. 142, 145; Math. 30b; Phys. 63. This course is an advanced study of the theoretical principles upon which chemistry is based. The properties of the gaseous, liquid, and solid states, the principles of thermodynamics and thermochemistry, and the theories of atomic and molecular structure are considered. The laboratory demonstrates the principles developed in the lecture.

342. PHYSICAL CHEMISTRY II. *Five hours credit.* (*Four hours lecture, two hours laboratory.*)

Prerequisite, Chem. 341. This course is a continuation of Chem. 341. The following topics are considered: solutions, homogeneous and heterogeneous chemical equilibria, and chemical kinetics.

343. PHYSICAL CHEMISTRY III. *Five hours credit.* (*Four hours lecture, two hours laboratory.*)

Prerequisite, Chem. 342. This course is a continuation of Chem. 342. Electrochemistry, ionic equilibria, and colloids are considered.

345. ORGANIC QUALITATIVE ANALYSIS. *Three hours credit.*

Prerequisites, Chem. 243, Chem. 244 or equivalent. This course is an advanced laboratory course in organic chemistry. The identification of organic compounds constitutes the laboratory work. No classwork is required, but a paper on some phase of organic chemistry is required. This course may be taken any quarter on consent of instructor.

346. SEMINAR IN CHEMISTRY. (Summers only.) *One hour credit.*

Prerequisite, consent of instructor. This course gives the graduate student an opportunity to report on some topic of interest treated in recent literature, as well as to profit by the reports of others.

EARTH SCIENCE**130. GENERAL METEOROLOGY. *Three hours credit.***

Weather elements such as temperature, pressure, wind, moisture, air masses, fronts, and storms. Maps and forecasting. Weather as related to agriculture and aviation.

131. DESCRIPTIVE ASTRONOMY. *Three hours credit.*

A study of the solar system and the place of our sun in the family of stars. The student learns to recognize and locate the more important stars. Extensive knowledge of science, mathematics and constellations not required.

200a. METEOROLOGY. *Three hours credit.*

Course will involve the study of weather elements such as temperature, pressure, and humidity. Special emphasis will be given to the use of instruments in weather observations which are the bases of forecasting.

200b. ASTRONOMY. *Three credit hours.*

This in-service course will place special emphasis on the understanding of the universe in which we live and its inner-relationships. A thorough study of the solar system will be made. The earth-moon system will be studied with some emphasis placed on the space travel problem. Galactic systems, nebulae, and types of stars will also be presented. At least one field trip to an observatory in the local area will be planned.

200c. GEOLOGY. *Three credit hours.*

Course will begin with a study of common minerals and rocks; then will follow the processes of weathering and erosion which wear down the earth's surface, and the counter processes of vulcanism and diastrophism which build up the earth.

230. COMMON MINERALS AND ROCKS. (Summers only.) *Three hours credit.*

This is laboratory course intended to give some practice in recognition of common minerals and rocks. On a field trip near the end of the course each student will collect a set of specimens for his own classroom. (Not open to those having had E. Sci. 231 or 236.)

231. PHYSICAL GEOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory. Field trips required.)*

This introductory course in the geology sequence involves recognition of minerals and rocks, a study of weathering and the processes of erosion, vulcanism, and movements in the earth's crust. (Not open to students who have had E. Sci. 236.)

232. HISTORICAL GEOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory. Field trips required.)*

Prerequisite, E. Sci. 231 or equivalent. This course surveys the changes which the earth has undergone as a result of the various geologic processes already studied. Theories of earth origin are briefly outlined and the methods of reading earth history from rocks and fossils are stressed.

233. MINERALOGY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisites, E. Sci. 231, Chem. 40b or equivalent. This course is an introductory study of common minerals with emphasis on identification

megascopically and by simple tests. Includes introductory crystallography, chemical composition, physical properties, origin and occurrence of about 150 minerals.

236. GENERAL GEOLOGY. *Four hours credit.*

A study of the materials making up the earth's crust, the counter-processes at work degrading and aggrading the crust, and a brief study of the origin and geologic history of the earth. Arranged especially for teachers who will take no additional work in geology. Two Saturday field trips required. (Not open to students who have had E. Sci. 231.)

PHYSICS

61. GENERAL PHYSICS—MECHANICS AND HEAT. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisites, Math. 21 or consent of instructor. The first quarter of the general course in physics treats of the laws, principles, and generalizations of mechanics and heat.

62. GENERAL PHYSICS—ELECTRICITY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Phys. 61. The second quarter of the general course in physics treats the principles, laws and generalizations in electricity.

63. GENERAL PHYSICS—SOUND, LIGHT, AND ATOMIC PHYSICS. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Phys. 62. The third quarter of the general course in physics treats the laws, principles, and generalizations concerning sound, light, and atomic physics.

68. ELEMENTARY ELECTRICITY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

A course designed for the student who needs a fundamental background in the general laws, principles, and generalization of electricity in everyday life.

166. ELECTRONICS. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisite, Phys. 63. This is a general course in electronics and electricity as applied to the reception and transmission of radio. Stress is placed upon the application of radio to everyday living.

167. ELEMENTARY PHOTOGRAPHY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

An elementary course designed to meet the needs of the amateur photographer and also to furnish an adequate background for more advanced work on the principles of photography.

261. BIOPHYSICS. *Four hours credit.*

Prerequisites, Bot. 22 and 23, Chem. 40c, Phys. 63, Zool. 12. Biophysics is a course designed to relate the principles of mechanics, heat, electricity, radio, light, sound, and atomic physics to both plant and animal life. Stress is placed upon the recent developments in physics as applied to living things.

262. PHOTOGRAPHY FOR TEACHERS. (Summers only.) *Three hours credit.*

A course in practical photography for teachers, designed to give teachers a working knowledge of photography and its possible uses both as a teaching device and as possible projects in classwork. The course consists of a study of cameras, developing and printing, enlarging and the taking of pictures.

264a. ADVANCED MECHANICS AND HEAT. *Four hours credit.*

Prerequisites, Math. 30b, Phys. 63. This first quarter of advanced physics deals with the development of the concepts of mechanics and heat and the mathematical interpretation of the laws and principles.

264b. ADVANCED ELECTRICITY. *Four hours credit.*

Prerequisites, Math. 30b, Phys. 63. This course deals with the funda-

mental development of the important concepts in A.C. and D.C. electricity. It furnishes the necessary background for electrical engineering.

264c. ADVANCED SOUND, LIGHT, AND WAVE MOTION. *Four hours credit.*

Prerequisites, Math. 30b, Phys. 63. This course deals with the fundamental principles and laws of wave motion, including their application to sound and light, with the emphasis placed upon the modern atomic concepts.

267. ADVANCED PHOTOGRAPHY. *Five hours credit. (Four hours lecture, two hours laboratory.)*

Prerequisites, Chem. 40c, Phys. 63, Phys. 167. An advanced course in the principles of photography.

366. SEMINAR IN PHYSICS. (Summers only.) *One hour credit.*

This course is designed to permit the student to increase the breadth of his knowledge in physics, to enable him to become familiar with the research and literature of physics and to prepare and present papers on the research in physics, either his own problem or the research of others.

368. ATOMIC PHYSICS. *Four hours credit.*

Prerequisites, Chem. 40c, Math. 30c, Phys. 63. This course is designed as an advanced course in modern atomic theory, nuclear structure, and their relationship to fundamental physical and chemical theory.

ZOOLOGY

11. GENERAL ZOOLOGY—INVERTEBRATE. *Five hours credit. (Three hours lecture, four hours laboratory.)*

The principles of animal biology are considered as they apply to the invertebrate phyla. In the laboratory a series of animals from protozoa through insects are used to illustrate the concepts developed in the classroom.

12. GENERAL ZOOLOGY—VERTEBRATE. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, Zool. 11 or permission from instructor. The principles of animal biology are considered as they apply to the vertebrates. Anatomy and physiology of typical vertebrates are studied in the laboratory using representative specimens from each vertebrate class. The principles of ecology and evolution of vertebrates are considered.

114. ORNITHOLOGY. *Three hours credit.*

Classroom, museum, and field studies on the habits, habitats, life histories, migration activities, and economic importance of birds. Students will have an opportunity to learn to identify birds in the field. (Field trips arranged.)

210. ECONOMIC ZOOLOGY. *Two hours credit.*

Prerequisite, 5 quarter hours in zoological science. The economic aspects of the non-domesticated animals from protozoa through mammals will be considered. Both harmful and beneficial factors will be evaluated.

211. COMPARATIVE ANATOMY OF THE VERTEBRATES. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 12 or equivalent. A detailed study of the systems of the vertebrates. The student is expected to make careful dissections of selected types. Sharks through mammals are used for laboratory study.

212. MAMMALIAN ANATOMY. *Five hours credit. (Three hours lecture, four hours laboratory.)*

Prerequisite, five quarter hours of vertebrate zoology or a course in anatomy, physiology, or kinesiology. A study of injected laboratory mammals in which techniques of dissection and laboratory procedures are emphasized. Skeletal structure, musculature, and the morphology of organs of respiration, circulation, and digestion are considered.

213. AQUATIC BIOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisites, one quarter zoology, one quarter botany. A course in the study of fresh water plants and animals of the Rocky Mountains Region. Emphasis will be upon methods of collecting, classification, ecological relations, and economic importance of the fresh water biota. Field trips arranged.

214. FAUNISTICS. *Four hours credit. (Two hours lecture, four hours laboratory.)*

An advanced taxonomy and ecological survey of the local fauna of Colorado with special emphasis on aquatic invertebrates, amphibians, reptiles, fishes, and mammals. This will include field trips, collection, and classification of the local fauna, and a study of the habits, habitats, and life histories of the local species under the ecological conditions that govern their distribution.

215. VERTEBRATE EMBRYOLOGY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 12 or equivalent. A study of the embryology of the chick and the pig compared to the embryology of the human body. Designed to provide an understanding of the early development of the human embryo.

216. PHYSIOLOGY OF NARCOTICS AND STIMULANTS. *Three hours credit.*

A course designed to give the student a knowledge of the effect of narcotics and stimulants on the human body and to review current methods of treatment in drug addiction. Some time will be given to sources of material for public school instruction on the subject of narcotics and stimulants.

217. HUMAN PHYSIOLOGY. *Four hours credit. (Three hours lecture, two hours laboratory.)*

Prerequisite, Zool. 12, or equivalent. A course in the functions of the human body designed to help the student understand normal functions of the human body and give him the knowledge with which to establish good health practices.

218. ANIMAL HISTOLOGY AND MICROSCOPIC TECHNIQUES. *Four hours credit.*

Prerequisite, Zool. 12 or equivalent. The skills of killing, staining, and preparing animal tissue for study are combined with the study of the types of tissues in the animal body. This class will meet two hours a day, four days a week.

219. INTRODUCTION TO ANIMAL ECOLOGY. *Two hours credit.*

Prerequisite, one quarter of zoology or equivalent. The principles governing animal relationships with their environment. Distribution, food supply, migratory movements, and territorial requirements will be emphasized. Field work required.

210. ENTOMOLOGY. *Three hours credit. (Two hours lecture, two hours laboratory.)*

Prerequisites, Zool. 11, 12. The study of the principal orders of insects. Specimens are collected locally and prepared by the student for classification and study. The role of insects as vectors in transmission of diseases and some control measures are considered in the latter parts of the course.

215. VERTEBRATE ORGANOGENY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 215. This course is a continuation of Zoology 215. It is a study of the origin and development of the organs of vertebrate animals from the time of formation of the three primary germ layers to the fully formed foetus. Prepared slides, preserved materials and incubating chick eggs will be used in laboratory exercises.

319. ANIMAL PARASITOLOGY. *Four hours credit. (Two hours lecture, four hours laboratory.)*

Prerequisite, Zool. 12 or equivalent. A study of typical parasites found in man and his domesticated animals. In the laboratory methods of clearing, staining and mounting are practiced.

MATHEMATICS MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours Credit
Math. 22	- - Analytic Geometry I	5
Math. 30a	- - Calculus I	5
Math. 30b	- - Calculus II	5
Math. 30c	- - Calculus III	5
Math. 201	- - Theory of Sets	3
Math. 220a	- - Modern Algebra I	5
Math. 230a	- - Analysis I	5
Math. 240a	- - College Geometry	5
Math. 250	- - Probability Theory	3
Math. 251a	- - Mathematical Statistics	5
Math. (electives on advice of department, any courses No. 100 or above)		2

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3. One minor of 27 quarter hours. It is recommended that this minor be in either Biological or Physical Science.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

MATHEMATICS MAJOR (Junior High School Level)

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours Credit
Math. 20a	- - Algebra I	5
Math. 20b	- - Algebra II	5
Math. 21	- - Plane Trigonometry	5
Math. 22	- - Analytic Geometry I	5
Math. 30a	- - Calculus I	5
Math. 30b	- - Calculus II	5
Arith. 90a	- - Arithmetic for Elementary Teachers I	3
Arith. 90b	- - Arithmetic for Elementary Teachers II	3
Math. (electives on advice of department, Math. 30c or any other courses numbered 100 or above)		12

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3. One minor of 27 quarter hours. It is recommended that this minor be in either Biological or Physical Science.

4. 28 to 35 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

Mathematics Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Math. 22	- - Analytic Geometry I	- - - - - 5
Math. 30a	- - Calculus I	- - - - - 5
Math. 30b	- - Calculus II	- - - - - 5
Math. (electives selected with approval of adviser)		- - - - - 12
		<hr/> 27

MATHEMATICS MAJOR
Bachelor of Arts Degree (Liberal Arts)

The following program is required: (1) Common courses listed on page 48; (2) at least 48 quarter hours in Mathematics in the preceding section under Bachelor of Arts degree (with teaching certificate); (3) One minor of 27 quarter hours preferably in either Biological or Physical Science; (4) Electives to complete requirements for graduation.

Description of Courses
ARITHMETIC

90a. ARITHMETIC FOR ELEMENTARY TEACHERS I. *Three hours credit.*

The first course of a two-quarter sequence in content arithmetic for elementary teachers to be taken prior to Ed. 212. This course will emphasize the history of numbers and numerals, fundamental concepts of sets, fundamental operations and their meaning, and the base of the number system.

90b. ARITHMETIC FOR ELEMENTARY TEACHERS II. *Three hours credit.*

Prerequisite, Math. 90a or equivalent. The second course of a two-quarter sequence in content arithmetic for elementary teachers to be taken prior to Ed. 212. This course will emphasize the necessity of extensions in the number system to fractions, negative numbers and real numbers. The last part of the course will stress the importance of approximation in the use of numbers.

290. FOUNDATIONS OF ARITHMETIC. *Four hours credit.*

Designed to provide opportunity for elementary and junior high teachers and supervisors to acquire the understandings of arithmetic essential for effective teaching. Areas to be covered include: the structure of our number system and operations in it, special numbers, measurement and approximate computation.

MATHEMATICS

1. BASIC MATHEMATICS FOR TEACHERS I. *Three hours credit.*

Designed to give the student with a limited background in mathematics a course which will be of personal and practical use to him. Also designed to give the prospective teacher of elementary arithmetic a course in content material. This course cannot be applied on a major or minor in mathematics.

2. BASIC MATHEMATICS FOR TEACHERS II. *Three hours credit.*

Prerequisite, Math. 1 or consent of instructor. A continuation of Math. 1 with emphasis being placed on more advanced topics of elementary arithmetic such as variation, proportion, mixture problems, and uses of percentage. This course cannot be applied on a major or minor in mathematics.

3. BASIC MATHEMATICS FOR TEACHERS III. *Three hours credit.*

Prerequisite, Math. 2 or consent of instructor. A continuation of Math. 2 with emphasis being placed on the following topics; simple algebraic manipulations, informal geometry, elementary statistics, compound interest, installment buying, and other practical problems. This course cannot be applied on a major or minor in mathematics.

20a. COLLEGE ALGEBRA I. *Five hours credit.*

Prerequisite, two years of high school mathematics or consent of instructor. The development and extension of concepts and skills beyond those studied in secondary school, and the practice of clear and independent thinking, with emphasis upon the understandings which lie back of algebraic processes.

20b. COLLEGE ALGEBRA II. *Five hours credit.*

Prerequisite, Math. 20a. A course designed to extend basic college algebra to include topics not normally covered in the first-year course.

21. PLANE TRIGONOMETRY. *Five hours credit.*

Prerequisite, Math. 20a or consent of instructor. A course which develops the trigonometric functions and their application, both theoretical and practical, in the solution of the triangle. Special emphasis is put upon the logarithms and their use in computation in the solution of the triangle and other problems.

22. ANALYTIC GEOMETRY I. *Five hours credit.*

Prerequisite, Math. 21 or consent of instructor. Explains and amplifies algebraic methods in the solving of geometric problems, thus acquainting the students with a powerful method of amplifying algebra and geometry. Especially valuable as a margin of information for teachers of both algebra and geometry.

30a. CALCULUS I. *Five hours credit.*

Prerequisite, Math. 22 or equivalent. This course presents the fundamental concepts of the differential calculus with the various applications of the derivative in solving problems in the scientific field. Successive differentiation and differentials are covered.

30b. CALCULUS II. *Five hours credit.*

Prerequisite, Math. 30a or equivalent. This course introduces the process of integration and the definite integral with its application to problems in science. Differentiation and integration or transcendental functions are also developed.

30c. CALCULUS III. *Five hours credit.*

Prerequisite, Math. 30b or equivalent. A continuation of those topics of differentiation and integration which are not adequately treated in Math. 30a and Math. 30b. The subject matter deals with differentiation of polar coordinates, radius and circle of curvature, indeterminate forms, series and expansion of functions.

122. ANALYTIC GEOMETRY II. *Three hours credit.*

Prerequisite, Math. 22, or equivalent. A continuation of Math. 22, emphasizing such topics as transformation of coordinates, tangents, polar coordinates, parametric equation, general equation of second degree in two variables, and cartesian coordinates in space.

201. THEORY OF SETS. *Three hours credit.*

Prerequisite, Math. 30b or equivalent. An introduction to the theory of sets and their relation to other branches of mathematics. The topics include: finite and infinite sets, ordered sets, points sets, continuous sets and functions.

205. MATHEMATICS OF FINANCE. *Four hours credit.*

Prerequisite, Math. 20a or consent of instructor. This course offers the student an opportunity to apply his elementary knowledge of arithmetic and algebra to problems of business. Such topics as simple and compound interest, annuities, installment buying, and life insurance are considered.

220a. MODERN ALGEBRA I. *Five hours credit.*

Prerequisite, Math. 201 or equivalent (May be concurrent). A study of modern abstract algebra including integral domains, fields, polynomials, rings, groups, isomorphisms, automorphisms, homomorphisms.

220b. MODERN ALGEBRA II. *Five hours credit.*

Prerequisite, Math. 220a. A continuation of Math. 220a with emphasis on linear algebra including vectors and vector spaces, matrix algebra, linear groups, algebra of classes.

230a. ANALYSIS I. *Five hours credit.*

Prerequisite, Math. 30c, 201, or equivalent. The first course of a sequence of three courses which will extend the student of calculus and analysis into the mathematical rigor and logic of analysis. This course will cover the following topics: Real numbers developed through the Dedekind cut definition, some introductory topological topics, limits, continuity, differentiability, and Riemann integral.

230b. ANALYSIS II. *Five hours credit.*

Prerequisite, Math. 230b or equivalent. A second course in a sequence of three courses. The topics to be covered in this course will be as follows: sequences and series, functions of several real variables and integrals of functions of several variables.

230c. ANALYSIS III. *Three hours credit.*

Prerequisite, Math. 230b or equivalent. The third course in a sequence of three courses. From the background built up in the first two courses, this course will consider certain special topics of application. Some of the topics to be considered will be chosen from the following: Implicit functions; applications to geometry; the gamma and beta functions; line, surface, and space integrals; vector notation, Bessel functions, elliptic integrals.

231. DIFFERENTIAL EQUATIONS. *Five hours credit.*

Prerequisite, Math. 30c or equivalent. A study of the theory and solution of differential equations. Ordinary and partial differential equations are treated along with numerous applications.

240a. COLLEGE GEOMETRY. *Five hours credit.*

Prerequisite, high school plane geometry or consent of instructor. A course which will give the prospective teacher of high school geometry an extension into the field of geometry beyond high school scope. Areas covered include constructions, use of loci in plane geometry and the theorems of Ceva, Menelaus, Stewart, Euler and Ptolemy.

240b. MODERN GEOMETRY. *Five hours credit.*

Prerequisite, Math. 240a or equivalent. A continuation of Math. 240a, this course is designed to introduce the student to modern developments in the field of geometry. Areas covered include similar figures, homothetic figures, auxiliary figures of the triangle, nine point circle, harmonic range, Simson line, isogonal lines, symmedians, and inversion.

250. PROBABILITY THEORY. *Three hours credit.*

Probability as a set function on a collection of events in a sample description space. Random variables as real-valued functions. Probability distributions of random variables; the discrete and continuous types. Moments of a distribution; mean and variance. Distributions in more than one dimension; covariance and correlation independence and conditional probability.

251a. MATHEMATICAL STATISTICS I. *Five hours credit.*

Empirical distribution and concepts of random sample. Mathematical models and the normal family. Other sampling distributions including the t , χ^2 , and F . Significance tests. Tests of hypotheses about a single parameter and two-parameter tests. Non-parametric tests. Estimation including maximum likelihood and confidence interval techniques.

251b. MATHEMATICAL STATISTICS II. *Five hours credit.*

A continuation of Math. 251a regression theory and correlation analysis with special emphasis on the linear hypothesis. Least squares methods and normal equations. Estimates and distribution theory when normality is assumed. Analysis of variance including treatment of fixed effects and random effects models with one- and two-way classifications. Brief treatment of enumeration data and introduction to decision theory.

291. THEORY OF NUMBERS. *Five hours credit.*

Prerequisite, Math. 30a or consent of instructor. Foundations of arithmetic and algebra, including the fundamental laws, the linear Diophantine equation, properties of integers and the properties of linear and quadratic congruences.

370a. STRUCTURE OF ARITHMETIC AND ALGEBRA. *Three hours credit.*

The fundamental concepts underlying the structure of arithmetic and algebra will be explored so that the teacher may gain an understanding of the methods of modern mathematics and the fundamental role played by postulational thinking in that structure.

370b. CONTEMPORARY CONCEPTS IN ALGEBRA. *Three hours credit.*

This course consists of an introduction to the following topics and of an analysis of their place in secondary mathematics: symbolic logic, sets, groups, fields, Boolean algebra, simple network analysis and game theory. A study will also be made of the organization of the mathematics curricula of selected school systems.

370c. CONTEMPORARY CONCEPTS IN GEOMETRY. *Three hours credit.*

A course that will introduce the student to many topics in contemporary geometry. Some of the topics will be as follows: advanced Euclidean geometry theorems, Hilbert's axioms, projective geometry, and topology. Throughout the discussion of these areas, ample opportunity will be given the student to delve into the implications of the subject being studied to the teaching of secondary geometry.

MATHEMATICS EDUCATION**170. MATHEMATICAL INSTRUMENTS AND SURVEYING.** *Four hours credit.*

Prerequisite, Math. 21 or equivalent. A course designed to show the teacher of mathematics some of the techniques and instruments used in many of the practical problems of measurement. Instruments studied are the slide rule, the sextant, and various instruments used in land surveying. The class will meet two hours a day, two days a week.

270a,b,c. MATHEMATICS TEACHERS' WORKSHOP. (Summers only.)
Three hours credit each.

Provision is made for students to work on individual problems related to the teaching of mathematics. A student may take no more than 6 quarter hours for credit.

271. INSTRUCTIONAL MATERIALS IN SECONDARY SCHOOL MATHEMATICS. *Three hours credit.*

Prerequisite, Math. 22 or consent of instructor. This course introduces the student into the rich areas of possible sources of instructional materials which can be used for instructional purposes in the secondary school. Areas studied will include aesthetic values of mathematics, instructional models, historical materials, classroom equipment, recreational materials, and calculating devices.

274. HISTORY OF MATHEMATICS. *Five hours credit.*

Prerequisite, Math. 22 or consent of instructor. A general view of the development and contributions of mathematics. A more detailed view of the development of arithmetic, algebra, geometry, and evolution of symbolism.

- §275a. DESCRIPTIVE STATISTICS.** (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

An introduction to the meaning and practical use of frequency distributions, graphical methods, percentiles, measures of average, variability, normal distribution, and correlation. Applications are made in the fields of education and psychology. One hour of credit for two hours of laboratory work in machine computation. Lectures, four hours credit.

- §275b. STATISTICAL INFERENCE.** (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

Prerequisite, Math. Ed. 275a or equivalent. Sampling, tests of hypotheses, estimation of parameters, and correlational methods. Emphasis on methods in educational research.

- 372. CURRICULUM IN SECONDARY SCHOOL MATHEMATICS.** *Four hours credit.*

Prerequisite, 24 quarter hours in college mathematics. A study of modern developments in curriculum offerings in secondary school mathematics, with special emphasis on mathematics best suited to the needs of non-college-bound students.

- 373. PROBLEMS IN THE TEACHING OF SECONDARY MATHEMATICS.** *Four hours credit.*

Prerequisite, 24 quarter hours in college mathematics. Special emphasis in this course is placed on such problems of teaching high school mathematics as: individual differences in ability, interests and needs, college preparatory courses and their organization for teaching.

- 374. SEMINAR IN TEACHING SECONDARY MATHEMATICS.** *Four hours credit.*

Prerequisite, experience in teaching mathematics or consent of instructor. Graduate students in this course will use their own backgrounds of experience, along with reading and discussion in class, to bring before the group special problems, together with proposed solutions.

- §375. DESIGN AND ANALYSIS OF EXPERIMENTS IN EDUCATION.** (Credit may be obtained in Mathematics or Educational Psychology and Guidance.) *Five hours credit.*

Prerequisite, Math. Ed. 275a or consent of instructor. Deals with the design and statistical analysis of experiments in the fields of education and psychology. Analysis of variance and co-variance forms a prominent part of the course.

MEDICAL TECHNOLOGY MAJOR

Bachelor of Arts Degree (Liberal Arts)

The four year program leading to the Bachelor of Arts degree in Medical Technology requires the student to earn a total of 180 academic quarter hours, plus six quarter hours of physical education activity courses. A minimum of 141 quarter hours will be earned on the campus of Colorado State College during the first three years and 45 quarter hours of Medical Technology will be earned during the senior year (July to June) at the Weld County General Hospital under the supervision of the clinical staff. The courses in Medical Technology are open only to majors in Medical Technology. The general college policies regarding registration and grading will be followed.

The following is the required program:

1. 48 quarter hours in the Common Courses listed for Liberal Arts on page 48. This includes six hours of physical education activity courses.

2. The following required courses in the major:

Course Number	Course Title	Hours	Credit
Med. Tech. 250	Urinalysis and Clinical Microscopy	- - - -	4
Med. Tech. 251	Basal Metabolism and Electrocardiography	- - - -	1
Med. Tech. 252	Hematology	- - - -	8
Med. Tech. 253	Pretransfusion Tests and Blood Bank Procedures	- - - -	3
Med. Tech. 254	Clinical Chemistry	- - - -	12
Med. Tech. 255	Serology	- - - -	4
Med. Tech. 256	Medical Microbiology	- - - -	12
Med. Tech. 257	Histologic Technique	- - - -	3
Electives		- - - -	1
			48

3. One minor of 27 quarter hours is required. The minor is a Medical Technology Chemistry Minor.

4. 44 quarter hours are required by the American Society of Clinical Pathologists and the staff of the Weld County General Hospital in the following courses: Chemistry 247, Botany 122, English 4b, Physics 62, 63, Mathematics 75, 76, Zoology 11, Biology 51.

5. 24 quarter hours of free electives to complete 180 quarter hours of academic credit required for graduation.

Medical Technology Minor in Chemistry

Course Number	Course Title	Hours	Credit
Chem. 40a	Principles of Chemistry I.	- - - -	5
Chem. 40b	Principles of Chemistry II.	- - - -	5
Chem. 40c	Introductory Organic Chemistry	- - - -	5
Chem. 142	Organic Chemistry	- - - -	5
Chem. 145	Quantitative Analysis	- - - -	5
	Electives	- - - -	2
			27

Medical Technology

These courses are open only to majors in Medical Technology.

250. URINALYSIS AND CLINICAL MICROSCOPY. *Four hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. This is a fundamental course in urinalysis covering the characteristics of urine, qualitative tests for sugars, ketone (or acetone) bodies, and protein, quantitative tests for sugars and protein, and microscopic examination of urine. Kidney function tests, other chemical tests, pregnancy tests, and tests on gastric and duodenal contents are included.

251. BASAL METABOLISM AND ELECTROCARDIOGRAPHY. *One hour credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. This course covers the principles and techniques of determining the basal metabolic rate and the theory and technique of electrocardiography.

252. HEMATOLOGY. *Eight hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. This course covers the methods of obtaining blood, determination of hemoglobin, red and white blood cell counts, hematocrit, study of blood smears, platelet count, reticulocyte count coagulation, clot retraction, bleeding and prothrombin time, direct eosinophile count, fragility of erythrocytes, sedimentation rate of erythrocytes and bone marrow smears preparation and study.

253. PRETRANSFUSION TESTS AND BLOOD BANK PROCEDURES.
Three hours credit.

This course covers selection and pretesting of donors, copper sulfate method of determining minimum hemoglobin, bleeding of donors, basic theory of blood factors, ABO grouping tests, Rh factor and Rh., (D) typing, cross-matching tests, subgroups A, irregular agglutinins, cold agglutinins, transfusion reactions, emergency transfusions, Rh antibody tests, and Coombs' test.

254. CLINICAL CHEMISTRY. *Twelve hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. Urine, cerebrospinal fluid, feces and other biologic materials are examined. Preparation of reagents and protein-free filtrates are studied. Colorimetry and photometry chemical tests include blood-sugar, non-protein nitrogen, urea nitrogen, creatinine, creatine, uric acid, albumin, globulin, acid-base balance, carbon dioxide capacity, chloride, phosphorus, phosphatases, calcium, sodium, potassium, liver function.

255. SEROLOGY. *Four hours credit.*

Principles of serology and immunology, the Kahn test, other flocculation and precipitation tests, colloidal gold and mastic tests, the complement fixation reaction, agglutination and opsonocytophagic tests, cold agglutinins are studied.

256. MEDICAL MICROBIOLOGY. *Twelve hours credit.*

Culture mediums, sterilization and disinfection, morphology and physiology of bacteria, stains, classification, relation of parasites to disease, techniques for parasitologic examinations, vaccines and filtrates, filtrable viruses, mycology techniques, the superficial fungi, and the deep mycotic infections are studied.

257. HISTOLOGIC TECHNIQUE. *Three hours credit.*

Prerequisite, senior and A.S.C.P. approval of transcript. Fixation and hardening of tissue, clearing of tissues, paraffin, infiltration and blocking of tissue, sharpening of microtome knife, sectioning of tissue and preparation of sections for staining, routine staining, technique, decalcification, frozen sections, special or differential staining methods, histochemistry, technique of exfoliative cytology are studied.

Division of the Social Studies

The Division of the Social Studies includes: (1) General Social Studies, (2) Social Science, (3) History and (4) Social Studies Education. Degrees and majors and minors are:

BACHELOR OF ARTS DEGREE (With Teaching Certificate)

Majors: Social Science, History, Social Studies (Junior High School Level.)

Minors: Social Science, World History, U. S. History.

BACHELOR OF ARTS DEGREE (Liberal Arts)

Majors: Social Science, History.

Minors: Social Science, World History, U. S. History.

MASTER OF ARTS DEGREE (With Teaching Certificate)

Majors: Social Science, History, Social Studies Education.

SPECIALIST IN EDUCATION DEGREE

Area of Specialization: To be selected.

DOCTOR OF EDUCATION DEGREE (With Teaching Certificate)

Area of Concentration: Social Studies.

Supporting Area: Social Studies.

SOCIAL SCIENCE MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Geog. 10	- - World Geography - - - - -	5
Anth. 20	- - General Anthropology - - - - -	5
Econ. 30	- - Introductory Economics - - - - -	5
Pol. Sci. 40	- - National Government of the U. S. - - - - -	5
Soc. 50	- - Principles of Sociology - - - - -	5
Other social sciences	- - Advanced electives in Anthropology, Economics, Geography, International Relations, Political Science and/or Sociology. These electives must be selected from one to three of these areas - - - - -	20
S. S. 200	- - Social Philosophy - - - - -	3

(For teaching the Social Studies the Colorado State Department of Education and the North Central Association require college work in History. Consequently, the Division requires the following courses *outside* the Social Science field: History 70a,b,c and History 30a,b,c or equivalents. To teach a separate subject like Anthropology, Economics, Geography, International Relations, Political Science or Sociology, 12 hours in that subject are required.)

3. One minor of 27 quarter hours outside the Division of the Social Studies.

4. 28 to 35 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

HISTORY MAJOR

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 30a,b,c	World History	12
Hist. 70a,b,c	United States History	9
Other History	Advanced electives in history	24
S. S. 200	Social Philosophy	3
		48

(For teaching the Social Studies the Colorado State Department of Education and the North Central Association recommend additional college work in Social Science. The Division requires a minor *outside* of History in *Social Science*. To teach a special subject 12 quarter hours are a minimum.)

3. One minor of 27 quarter hours *outside* the Division of the Social Studies.

4. 28 to 35 quarter hours of free electives to complete the 180 quarter hours of academic credit required for graduation.

SOCIAL STUDIES MAJOR (Junior High School Level)

Bachelor of Arts Degree (With Teaching Certificate)

The following is the required program:

1. 73 to 80 academic quarter hours in the Common Courses listed on pages 47-48, plus 6 quarter hours of physical education activity courses.

2. The following required courses in the major:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 30a,b,c	World History	12
Hist. 70a,b,c	United States History	9
Hist. 250	History of Colorado	2
Geog. 250	Geography of Colorado	2
Pol. Sci. 40	National Government of the U. S.	5
Geog. 18	World Geography for Elementary and Junior High School Teachers	4
Geog. 48	United States Electives (Select 10 hours from the following: Pol. Sci. 171, 275; Econ. 30; Soc. 50; Anth. 20)	4
		48

3. One minor of 27 quarter hours outside of the division.

4. It is recommended that each student elect a minimum of 15 additional hours of subject matter courses and a minimum of 12 additional hours of professional courses selected from the recommended list.

5. Sufficient free electives to complete the 180 quarter hours of academic credit required for graduation.

Recommended Subject Matter

A minimum of 15 additional hours which *may be* selected from this list. Other courses with advisement.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 255	- - Contemporary World History - - - - -	5
Hist. 246	- - Geographic Influences in U. S. History - -	2-4
Geog. 207	- - Conservation of Natural Resources - - - -	4
Geol. 286	- - General Geology - - - - -	4

Professional Courses

A minimum of 12 additional hours which *may be* selected from this list. Other courses with advisement.

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Eng. 204	- - Developmental Reading in Grades 7, 8, 9 - -	4
Ed. 208a	- - Audio-Visual Materials in Education - - - -	4
E.P.G. 210	- - Principles and Philosophy of Guidance - - -	3
E.P.G. 212	- - Occupational Information and Analysis in Vocational Guidance - - - - -	3
Ed. 231	- - Instructional Materials for the Social Studies in the Junior High School - - - - -	3
Ed. 247	- - Educational Sociology and Community Organization - - - - -	3

Social Science Minor

Twenty-seven quarter hours in the areas of Anthropology, Economics, Geography, Political Science and Sociology. The student will select *one to three* of these areas. In each instance the student is required to take the introductory course in the area or areas selected. These introductory courses are:

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Geog. 10	- - World Geography - - - - -	5
Anth. 20	- - General Anthropology - - - - -	5
Econ. 30	- - Introductory Economics - - - - -	5
Pol. Sci. 40	- - National Government of the U. S. - - - - -	5
Soc. 50	- - Principles of Sociology - - - - -	5

(To teach the Social Studies the North Central Association requires college work in High School History. History 70a,b,c is recommended. To teach a special subject 12 quarter hours is the minimum.)

World History Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 30a,b,c	- - World History - - - - -	12
Advanced electives in World History	- - - - -	15
		27

(To teach the Social Studies the North Central Association requires U. S. History and recommends courses in Social Science. The Division recommends History 70a,b,c and selected courses from Government, International Relations, Economics, Sociology, Geography and Anthropology. To teach a special subject 12 quarter hours is the minimum.)

United States History Minor

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Hist. 70a,b,c	United States History	9
Advanced electives in United States History		18
		27

(To teach the Social Studies the North Central Association recommends courses in Social Science. The Division recommends courses selected from Government, International Relations, Economics, Sociology, Geography, Anthropology and History 30a,b,c. To teach a special subject 12 quarter hours is the minimum.)

Recommended Electives for Elementary School Teachers

<i>Course Number</i>	<i>Course Title</i>	<i>Hours Credit</i>
Anth. 20	General Anthropology	5
Anth. 221	Indians of the Americas	3
Econ. 30	Introductory Economics	5
Econ. 102	Contemporary Economic Problems	3
Geog. 18	World Geography for Elementary and Junior High School Teachers	4
Geog. 48	United States	4
Hist. 246	Geographic Influences in U. S. History	2
Hist. 250a	History of Colorado	2
Hist. 250b	Geography of Colorado	2
Hist. 251	Colonial America	3
Hist. 252	History of the West	5
Pol. Sci. 40	National Government of the U. S.	5
Pol. Sci. 171	State and Local Government	4
Soc. 50	Principles of Sociology	5
Soc. 204	Marriage and the Family	3
Soc. 206	Crime and Delinquency	3

MAJOR AND MINOR REQUIREMENTS**Bachelor of Arts Degree (Liberal Arts)****SOCIAL STUDIES MAJORS**

There are two liberal arts majors: *Social Science* and *History*. The requirements are the same as those listed on pages 202-203, except that the common courses are those listed on page 48.

Social Studies Minors

Liberal Arts Minors may be in social science, world history or U. S. history.

Description of Courses**GENERAL SOCIAL STUDIES****81. THE INDIVIDUAL AND HIS SOCIAL RELATIONS. *Three hours credit.***

The integration of subject matter offerings in general education; the nature of social science; scientific method; analysis of social behavior of the individual based upon data from all fields of the social studies; contemporary education and intergroup relations.

82. AMERICAN LIFE AND INSTITUTIONS. *Three hours credit.*

Major problems in the life of the citizens of the United States in the contemporary period; problems connected with the maintenance of the family, relationships between man and government, man's organization for production, the role of labor in an industrial society, and the position of agriculture.

83. CONTEMPORARY WORLD CULTURES. *Three hours credit.*

Investigates the geographic framework of contemporary world cultures; reviews briefly the interdependent and inter-related nature of world cultures, and surveys the problem of the maintenance of world peace.

120. INDIVIDUAL STUDIES. *Three hours credit for one problem; a maximum of six hours credit is permitted.*

Individual undergraduate study under the guidance of a staff member in any area of the division. Field or area of credit to be designated. Available only on consent of instructor concerned. Twenty-five clock hours of work for each credit.

200. SOCIAL PHILOSOPHY. *Three hours credit.*

The meaning of the experiences of mankind; a study of progress toward more adequate conceptions of relationships among men and peoples.

300. INTRODUCTION TO GRADUATE STUDY. *Four hours credit.*

A study of the literature and techniques of research in the area of the graduate major. The course is required of all first-quarter graduate students who intend to receive the degree of Master of Arts.

322. INDIVIDUAL STUDIES. *One to four hours credit for one problem; a maximum of eight hours credit is permitted.*

Individual graduate study under the guidance of a staff member in any area of the division. Field or area of credit to be designated. Available only on consent of instructor concerned. Paper required. Twenty-five clock hours of work for each credit.

330. GRADUATE READINGS COURSE IN THE SOCIAL STUDIES. *Four hours credit.*

This course is designed to give doctoral candidates who are deficient in the social studies an opportunity to acquire a basic amount of knowledge and understanding of our cultural heritage and of the political, social, and economic problems that confront America and the rest of the world. Possible solutions of contemporary problems are examined.

399. THESIS. *Eight hours credit.* (Master's thesis.)**422. SEMINAR IN SOCIAL STUDIES RESEARCH.** *Four hours credit.*

Prerequisites: At least 1 quarter of work on the doctoral level. A seminar, using scholarly research techniques, designed to probe in depth a specific topic which casts light upon one or more of the important generalizations in the area of the social studies. The topic for each quarter will be decided upon by consultation between the instructor and students.

THE SOCIAL SCIENCES**Geography****10. WORLD GEOGRAPHY.** *Five hours credit.*

Tools of world geography. World survey of the inter-relationships of man and his culture to the climates, animal life, minerals, soils and surface features of the earth. (When this course is taken no credit may be given for Geog. 18.)

18. WORLD GEOGRAPHY FOR ELEMENTARY AND JUNIOR HIGH SCHOOL TEACHERS. *Four hours credit.*

A broad survey of the world importance, geographical characteristics and major problems of the great world regions, including a more intensive study of their most significant countries and groups of countries. (When this course is taken no credit may be given for Geog. 10.)

48. UNITED STATES. *Four hours credit.*

A study of regions and their interdependence. Land use, social and economic problems emphasized.

112. ECONOMIC GEOGRAPHY. *Three hours credit.*

Geographic and economic conditions affecting the products, industries, commerce and resources of the world. Special emphasis on the United States.

143. EUROPE. *Three hours credit.*

Physical and cultural patterns. The nations of Europe, their regions, cultures, social and economic organizations with resulting conflicts.

§157. PRINCIPLES OF CONSERVATION. Credit may be obtained in Science or Social Studies.) *Four hours credit.*

For description of this course, see page 185.

203. WORLD RESOURCES AND INDUSTRIES. *Five hours credit.*

A functional appraisal of the resources and industries of the world including a consideration of their geographical, historical, sociological, technological, and political aspects.

204. THE HISTORICAL GEOGRAPHY OF EUROPE AND THE MEDITERRANEAN BASIN. *Five hours credit.*

Prerequisite, Geography of Europe, or permission of the instructor. A regional analysis of the geographic conditions influencing the history of the settlement, population distribution, and political and economic growth of this region of the world. Particular emphasis will be placed upon historical developments in agriculture, industry, commerce and transportation, the use of natural resources, and trends in settlement and population distribution.

226. AFRICA. *Five hours credit.*

Relationships between the physical and cultural patterns. Land use, resource development, social and political problems.

244. ASIA. *Five hours credit.*

The countries of Asia in terms of their physiography, climates, regions, cultures, cultural landscapes, social organizations and economic activities.

§246. GEOGRAPHIC INFLUENCES IN UNITED STATES HISTORY. (Credit may be obtained in History or Geography.) *Two hours credit.*

For description of this course, see page 212.

247. LATIN AMERICA. *Four hours credit.*

The countries of Latin America: regions, cultures, economics, social and political conditions.

250b. GEOGRAPHY OF COLORADO. *Two hours credit.*

The study of the geographical and human resources of Colorado. The course is concerned with the physical features, climate, land form regions and natural resources of the state and their utilization and conservation; agriculture, mining, manufacturing, water supply, transportation and the commerce and industry; population problems, state government and current problems in the growth and development of Colorado.

§257. CONSERVATION OF NATURAL RESOURCES. (Credit may be obtained in Science or Social Studies.) *Four hours credit.*

For description of this course, see page 186.

260. POLITICAL GEOGRAPHY. *Five hours credit.*

Prerequisite, permission of instructor. A study of the principles of political geography as developed through a systematic and regional analysis of political phenomena and their relation to geographic conditions.

365. THE SOVIET UNION. *Three hours credit.*

Prerequisites, Geog. 10 or 18 or permission of instructor. A regional analysis of the geographic conditions, their historical importance, and their relation to economic, social, and political problems in the Soviet Union and to its position in world affairs.

ECONOMICS AND POLITICAL SCIENCE**Economics****30. INTRODUCTORY ECONOMICS.** *Five hours credit.*

An introductory analysis of the American economic system as it affects the average citizen. Considers resources, the market, business organization, labor, money and public finance.

102. CONTEMPORARY ECONOMIC PROBLEMS. *Three hours credit.*

Prerequisite, Econ. 30. An examination into critical economic problems facing modern society, most of which are in sharp focus within the decade. Particular attention is given to agricultural adjustment, high-level employment maintenance, federal taxation influences, monetary controls, stabilization of prices, obstructions to foreign trade.

200. LABOR-MANAGEMENT RELATIONS. *Five hours credit.*

Prerequisites, some introductory courses in history, political science or business education. A study into the origins of the labor movement and an examination of the impact of trade unionism on contemporary industrial organization.

202. MONEY AND BANKING. *Three hours credit.*

A study of the origins and present roles of our monetary system, commercial banking and Federal Reserve System.

203. PERSONAL INVESTMENTS. *Three hours credit.*

What everyone should know about stocks and bonds. How to analyze financial news and financial reports with simulated purchase and sale of common stock.

205. RUSSIA'S SOVIET ECONOMY. *Three hours credit.*

A synthesis of available knowledge regarding all major sectors of the Soviet economy, particularly as regards their organization and operation.

§209. ECONOMIC HISTORY OF THE UNITED STATES. (Credit may be obtained in Economics or History.) *Four hours credit.*

A review of the historical changes in the major American economic institutions with emphasis on the post-Civil War period.

§210. HISTORY OF ECONOMIC SYSTEMS: SOCIALISM, COMMUNISM, CAPITALISM, FASCISM. (Credit may be obtained in Economics or History.) *Four hours credit.*

A survey of social economic reform movements, including Utopian schemes, mercantilism, monopolistic capitalism, socialism, communism, fascism and modified capitalism.

241. PUBLIC FINANCE. *Four hours credit.*

A study of government financing on the federal, state, and local level as it is reflected in expenditures, revenue sources such as taxes, and the problems and solutions of public debt.

277. GOVERNMENT AND BUSINESS. *Three hours credit.*

A study of the relation of American public policy to the challenge of industry, labor, agriculture and inflation-depression periods.

Political Science (And International Relations)**40. NATIONAL GOVERNMENT OF THE UNITED STATES. *Five hours credit.***

Origin and adoption of the Constitution, basic principles of the American constitutional system, the machinery of popular control, and the structure of the national government.

171. STATE AND LOCAL GOVERNMENT. *Four hours credit.*

Prerequisite, Pol. Sci. 40. The organization of state, county, and municipal governments.

172. PROBLEMS IN UNITED STATES GOVERNMENT. *Four hours credit.*

Prerequisite, Pol. Sci. 40. The constitutional and extra-constitutional factors affecting the legislative process, the conduct of administration, the budgetary and fiscal policies of the government, and the control of foreign relations.

§218. RUSSIAN-AMERICAN RELATIONS. (Credit may be obtained in Political Science or History.) (Summers only.) *Three hours credit.*

An analysis of the contemporary political and economic relations between the United States and the Soviet Union; of zones of tension and conflict, areas of agreement and possible solutions to the controversies which currently make for strained relations between these world powers.

§272. CONTEMPORARY AMERICAN FOREIGN POLICY. (Credit may be obtained in History or Political Science.) (Summers only.) *Three hours credit.*

For description of this course, see page 209.

274. INTERNATIONAL ORGANIZATION. *Three hours credit.*

The bases of international relations, progress in international laws and legislation and modern attempts to establish formal machinery for handling international problems.

275. THE UNITED NATIONS. *Three hours credit.*

The background and organization of the United Nations. Includes a detailed study of the six organic bodies of the United Nations and its subsidiary agencies.

276. INTERNATIONAL RELATIONS. *Three hours credit.*

A study of the power relationships existing in a world of sovereign nation states at mid-century.

279. POLITICAL PARTIES AND PRESSURE GROUPS. *Three hours credit.*

Prerequisite, Pol. Sci. 170. The organization and techniques of political parties in the United States, the voting behavior of the electorate and the problems relating to the machinery of representative democracy.

376. GOVERNMENT OF GREAT BRITAIN. *Three hours credit.*

A study of British political theory, the legislative, executive and administrative branches of government and the political problems of Great Britain at mid-century.

377. THE CONSTITUTION AND ITS INTERPRETATION. *Four hours credit.*

Prerequisite, Pol. Sci. 170. The major sections and clauses of the Constitution as developed, and interpreted by the courts and by leading writers in the field of constitutional law.

378. GOVERNMENT OF THE UNION OF SOVIET SOCIALIST REPUBLICS. *Two hours credit.*

A study of Russian political theory; an examination of the legislative, executive and judicial branches of government.

SOCIAL RELATIONS

Anthropology

§20. GENERAL ANTHROPOLOGY. (Credit may be obtained in Social Studies or Science.) *Five hours credit.*

The nature and scope of anthropology, organic man, the problems of race, the nature of culture, the gathering and production of food, economic organization, social organization, political organization, religion, language, education and the formation of personality, problems of culture change, acculturation and applied anthropology. Emphasis upon cultural anthropology.

§220. WORLD ETHNOLOGY. (Credit may be obtained in Social Studies or Science.) *Three hours credit.*

Analysis of cultures different from our own in Asia, Africa, the Americas, Polynesia, Micronesia and adjacent areas, cultural and linguistic areas of the world.

221. INDIANS OF THE AMERICAS. *Three hours credit.*

Nonliterate cultures of the Americas. Emphasis on the Indian cultures of North America.

224. INDIANS OF THE SOUTHWEST. (Summers only.) *Three hours credit.*

One-half of the time will be spent on background materials relative to Pueblo and Apache cultures, and the eventual abandonment of Mesa Verde area. The remaining portion of the course will be spent in the field at Mesa Verde and other appropriate sites. Those wishing to enroll should contact the division.

223. SPANISH-AMERICAN CULTURE. *Three hours credit.*

A survey of the cultures in the new world in the pre-hispanic era, the Spanish culture as it was brought to the Americas and a study of the resulting amalgamation that produced the Spanish-American cultures of today.

Sociology**50. PRINCIPLES OF SOCIOLOGY.** *Five hours credit.*

A study of social organization, culture, socialization, social stratification, associations, collective behavior, population and ecology with detailed applications to the functioning of society in the United States today.

203. WORLD'S GREAT RELIGIONS. *Three hours credit.*

No definite prerequisite; a knowledge of world history is highly desirable. A comparative study of the world's major religions, their origins and historical development, their doctrines, literature, customs, and relations to society.

204. MARRIAGE AND THE FAMILY. *Three hours credit.*

A functional approach to education for marriage and family life, including anticipating marriage, what it means to be married, the making of a family and the nature of family life yesterday, today and tomorrow.

206. CRIME AND DELINQUENCY. *Three hours credit.*

A study of the problem of crime and delinquency, causes, treatment and prevention.

§291. SOCIAL PSYCHOLOGY. (Credit may be obtained in Social Studies or Education.) *Three hours credit.*

Prerequisite, E.P.G. 20. A study of social communication in human groups, the identification of mutually dependent elements in the human group and the study of the human group as an organic whole. The case study approach is used. Emphasis is given to leadership.

§292. PROBLEMS OF INTERGROUP RELATIONS. (Credit may be obtained in Educational Psychology and Guidance or Social Studies.) *Two hours credit.*

For description of this course, see page 121.

302. AMERICAN SOCIETY TODAY. *Three hours credit.*

An advanced study of the main cultural and social structures of American society, the social relations, beliefs and values which characterize the people of the United States.

310. COMPARATIVE SOCIAL INSTITUTIONS. *Four hours credit.*

Elective for advanced master and doctorate degrees. The course will discuss social transition from the stateless society of the pre-historic period to the contemporary nation-states. It will illustrate the change from small isolated units of social interchange to the interdependent and interrelated world-centered units of today. The course will conclude with an analysis of the recent trends toward universalism and the one-world concept.

Social Psychology**§285. MENTAL HYGIENE AND EMOTIONAL ADJUSTMENT.** (Credit may be obtained in Educational Psychology and Guidance, Social Studies, or Health and Physical Education.) *Three hours credit.*

For description of this course, see page 121.

- §291. SOCIAL PSYCHOLOGY.** (Credit may be obtained in Sociology, Social Psychology or Educational Psychology and Guidance.) *Three hours credit.*

For description of this course, see page 210.

- §293. SOCIODRAMA.** (Credit may be obtained in Social Studies or Educational Psychology and Guidance.) *Two hours credit.*

How to use sociodrama. The topics studied are: producing a sociodrama, purposes of the sociodrama, types and uses of the sociodrama.

- §294. SOCIOMETRY.** (Credit may be obtained in Social Studies or Educational Psychology and Guidance.) *Two hours credit.*

A study of the organization of small groups with the aid of an instrument for measuring interhuman preferences.

- §380. PERSONALITY DEVELOPMENT.** (Credit may be obtained in Educational Psychology and Guidance or Social Studies.) *Three hours credit.*

For description of this course, see page 121.

- §384. GROUP DYNAMICS IN HUMAN RELATIONS.** (Credit may be obtain in Educational Psychology and Guidance or Social Studies.) *Three hours credit.*

For description of this course, see page 121.

HISTORY

World History

- 30a,b,c. WORLD HISTORY.** *Four hours credit each.*

World history suitable for the preparation of teachers in elementary and secondary schools. This course will include a brief analysis of the Far East, Africa, and the Western Hemisphere as well as a more detailed coverage of European history. Hist. 30b prerequisite to 30c. (30a, to 1200; 30b, 1200 to 1815; 30c, 1815 to present.)

- §210. HISTORY OF ECONOMIC SYSTEMS: SOCIALISM, COMMUNISM, CAPITALISM, FASCISM.** (Credit may be obtained in Economics or History.) (Summers only.) *Four hours credit.*

For description of this course, see page 208.

- §218. RUSSIAN-AMERICAN RELATIONS.** (Credit may be obtained in Political Science or History.) *Three hours credit.*

For description of this course, see page 209.

- 221. THE GREAT WORLD ISSUES.** (Summers only.) *Three hours credit.*

This course contemplates a thorough inquiry into one or more of the great world issues of the day, approaching the problem or problems from the historical, economic, geographic, cultural, political, and diplomatic viewpoints.

- 234. HISTORY OF LATIN AMERICA.** *Five hours credit.*

A study of the development of the economic, educational, political, religious, and social institutions of Latin America. Consideration will be given to United States relations with Latin America, and to the status of and prospects for democracy in Latin American nations.

- 255. CONTEMPORARY WORLD HISTORY.** *Five hours credit.*

An advanced study of world developments in recent times which will investigate the period from 1900 to the present. The course will discuss the ideologies of Communism, Socialism, Fascism and Democracy in their world setting.

- 260. ANCIENT HISTORY.** *Five hours credit.*

The life and institutions of the Ancient Near East, Greece, and Rome: cultural development, living conditions, and recent archaeological discoveries.

- 261. THE MIDDLE AGES.** *Five hours credit.*

An advanced coverage of history from the end of ancient times to the beginnings of modern Europe.

269. THE FAR EAST. *Five hours credit.*

The economic, social, educational, philosophical, and political life of the major nations and regions of the Far East.

270. HISTORY OF RUSSIA. *Five hours credit.*

Social, political, and economic history of Russia, with emphasis on the nineteenth and twentieth centuries. Considerable attention will be given to the various factors which contributed to or influenced the revolutions of 1905 and 1917. Considerable time will also be devoted to the post-revolution policies of Russia.

271. ENGLISH HISTORY. *Five hours credit.*

The emphasis of the course will be on the economic, political and social transitions since the defeat of the Spanish Armada but it will contain a brief survey of the background of English History to the Tudor Dynasty.

330. HISTORY OF NATIONALISM. *Five hours credit.*

Deals mainly with the rise of nationalism in the 18th century, its spread over Europe in the 19th century, and its world-wide expansion in the 20th century. Examines the interaction of nationalism, industrialism, revolution and democracy. Compares different manifestations of nationalism in Russia, Japan, and other non-Western nations as well as European nations.

332. INTERRELATIONSHIP OF WESTERN AND EASTERN CIVILIZATIONS. *Four hours credit.*

Traces the historical origins of the division between Western democracies and communistic Russia; the impact of Western civilization upon India, China, Japan, and Southeastern Asia; and the more recent counter-impact of the non-Western civilizations. Explores the possibility of reconciling the conflicting ideologies through a more inclusive cultural ideal.

333. REVOLUTIONS IN MODERN TIMES. *Four hours credit.*

The four great revolutions of the western world, namely, the English, American, French, and Russian Revolutions are compared in a search for causes and possible patterns of revolution. Post-World War II revolutions are analyzed to find economic, social, and intellectual causes of the revolutionary period of today.

United States History**70a,b,c. UNITED STATES HISTORY.** *Three hours credit each.*

This is the three quarter survey course in United States history for all history majors and United States history minors. The major topics included are: 70a, European backgrounds of American history; 70b, the war between the states, reconstruction, the emergence of modern America; 70c, the new freedom, the first world war, post-war problems and adjustments.

75. UNIT SURVEY OF UNITED STATES HISTORY. *Four hours credit.*

For elementary majors and minors only. Detailed consideration of specific units in American history with emphasis upon the content and materials for use in elementary schools.

§209. ECONOMIC HISTORY OF THE UNITED STATES. (Credit may be obtained in Economics or History.) *Four hours credit.*

For description of this course, see page 208.

§246. GEOGRAPHIC INFLUENCES IN UNITED STATES HISTORY. (Credit may be obtained in History or Geography.) *Two hours credit.*

Relationships of the geography of the times to the discovery, exploration, settlement, and development of the United States.

250a. HISTORY OF COLORADO. *Two hours credit.*

Study of the geographical and human resources of Colorado; Indian influence; Spanish, French and American explorations; historical development; early settlements; pioneer life; the gold and silver rushes; cattle, agriculture and industry; political, economic and social progress; development of government; and problems of today.

251. COLONIAL AMERICA, 1607-1763. *Three hours credit.*

Political, economic, and social aspects of the transplanting of European civilization to North America, with the beginnings of the rise of a distinctive American civilization.

252. HISTORY OF THE WEST. *Four hours credit.*

Western movement beginning with 1607. The colonial west, organization of Northwest territory, Indian wars, Cumberland road, coming of steamboat, canal era, frontier monetary problems, relation of Mormons to westward movement, pre-emption and homestead acts, forty-niners and fifty-niners, transcontinental railroads, range cattle industry.

265. CONTEMPORARY UNITED STATES HISTORY. *Three hours credit.*

Brief summary of the great trends in the United States in the period following 1865. World War I, League of Nations, normalcy and reaction, the great depression, new deal, World War II, United Nations, Korean "Police Action," contemporary problems.

§272. CONTEMPORARY AMERICAN FOREIGN POLICY. (Credit may be obtained in History or Political Science.) (Summers only.) *Three hours credit.*

The course examines American foreign policy by visiting Washington, D. C., and the United Nations at New York City. In Washington the class hears lectures at the State Department and observes the Foreign Relations committees of both Houses of Congress. At the United Nations headquarters in New York the class is briefed on America's role in the world organization.

273. DIPLOMATIC HISTORY OF THE UNITED STATES. *Five hours credit.*

Survey of the diplomacy which has affected the United States during its entire history. Supplementary readings required in the original and secondary sources.

363. AMERICAN REVOLUTION. *Three hours credit.*

Colonial background, the imperial rivalries for control of the North American Continent, the conflict between the Colonies and Great Britain, Declaration of Independence, Treaty of Paris 1783, Articles of Confederation, United States Constitution.

364. CIVIL WAR AND RECONSTRUCTION. *Three hours credit.*

Slavery in America, the crises of the 1850's and the election of 1860, secession, conflict between the states, the Emancipation Proclamation, the reconstruction of the defeated South.

366. THE ERA OF JACKSONIAN DEMOCRACY, 1815-1850. *Five hours credit.*

Prerequisite, previous work in American History. An intensive survey of the social, economic, and political developments of the "Middle Period" of American History. Major themes are the advent of industrialism, democracy, Manifest Destiny, and the genesis of a bitter sectional controversy.

367. INTELLECTUAL HISTORY OF THE UNITED STATES. *Five hours credit.*

No prerequisites though previous work in American History is advisable. A study of the intellectual aspects of characteristic institutions and the changing modes of thought in American life from the Colonial period to the present day. The relationship of intellectual life to social and economic conditions is stressed.

Social Studies Education**h50. HONORS SEMINAR.** *No credit.*

A study of the problems of importance to honors students in this division in special honors program to develop master teachers, and a study of the characteristics of the master teacher and their implications for education of the honors student.

210. ECONOMIC EDUCATION WORKSHOP. (Summers only.) *Three hours credit.*

A program designed to improve the teaching of economic concepts and the facts of life about our American economy. Attention will be centered on an understanding of our economic system, how these understandings can be introduced into the classroom situation, and materials useful for instructional purposes.

231. INSTRUCTIONAL MATERIALS FOR THE SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL. *Three hours credit.*

Study of instructional materials for junior high school social studies. Attention will be given to collateral, supplementary, and source materials, historical fiction, audio-visual aids, graphic materials, community resources, current news media, music, creative activities, and techniques of evaluating student learning through the use of such instructional materials.

§245c. ELEMENTARY AND SECONDARY SCHOOL SOCIAL STUDIES CURRICULUM WORKSHOP AND CONFERENCE. (Summers only.) (Credit may be obtained in Education or Social Studies.) *Three hours credit.*

For description of this course, see page 102.

305. IMPROVEMENT OF INSTRUCTION IN SOCIAL STUDIES IN THE SECONDARY SCHOOL. *Four hours credit.*

Consideration of recent trends in the organization and teaching of social studies courses in the secondary school. Teachers will be given opportunity to evaluate new courses of study, new materials and new equipment developed in an attempt to improve teaching procedures.

402. PHILOSOPHY AND CONTENT OF THE SOCIAL STUDIES. (Summers only.) *Four hours credit.*

The course will acquaint the student with the historical evolution of the social studies curriculum and its contemporary status and interpretation. It will investigate the subject matter fields of the social studies and will give a brief interpretation of their content, both historical and contemporary.

403. SEMINAR IN PROBLEMS OF TEACHING. (Summers only.) *Four hours credit.*

Usual doctoral prerequisites. Doctoral candidates will utilize understandings in the areas of (1) social analysis, (2) objectives, (3) curricular content, (4) the learning process, (5) the teaching process, and (6) evaluation, in resolving problems anticipated in the light of doctoral and post-doctoral plans.

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