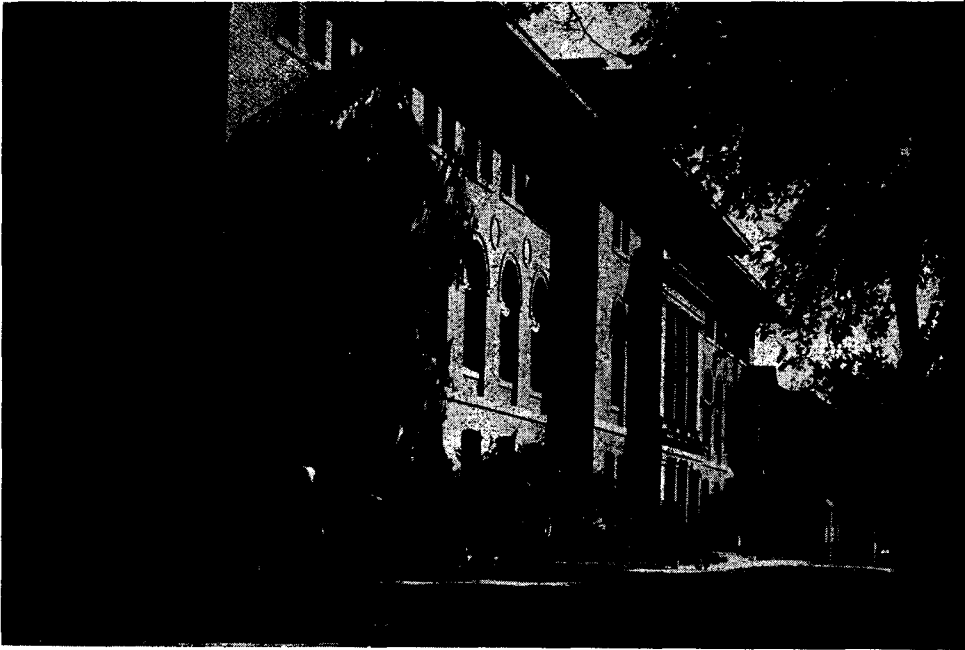


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Bulletin of the
UNIVERSITY OF MINNESOTA



School of Agriculture, St. Paul Campus
1954-1956

Courses in Agriculture, Home Economics, Food Technician,
Practical Nursing and Home Management, and
Office Training and Home Management

THE SCHOOL OF AGRICULTURE

The School of Agriculture seeks to serve the state and society by training responsible rural young people for creative, cooperative living in farm homes and communities.

It affords young men and women post-high school vocational education designed to make farming a profitable occupation, to elevate the standards of the farm home, to make farm life attractive, and to train practical nurses for rural hospitals and communities, food technicians, and to offer courses in office training and home management as well as in home economics.

It will help the student to bridge the gap between high school, farming, rural living and practical nursing.

The School of Agriculture desires to so enrich and to so stimulate the lives of its students that they in turn may be inspired to enrich and stimulate the home and community units in which they live.

It uses all its resources to provide for its students an environment that is favorable to living the good life.

UNIVERSITY OF MINNESOTA

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William F. Geddes, Ph.D., Head; John E. Gander, B.S.

AGRICULTURAL ECONOMICS

Oscar B. Jesness, Ph.D., Head; Reynold Dahl, M.S.; Royce Hinton, M.S.; Arvid Knudtson, M.S.; Truman Nodland, Ph.D.

AGRICULTURAL ENGINEERING

Arthur J. Schwantes, M.S.(Ag.E.), Head; James R. Beebe, M.S.(Ag.E.); Clarence H. Christopherson, M.A.; Harold A. Cloud, M.S.(Ag.E.); J. Grant Dent; Arnold M. Flikke, M.S.(Ag.E.); Robert V. Keppel, M.S.(Ag.E.); Jesse H. Pomroy, M.S.(Ag.E.).

AGRONOMY

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ANIMAL HUSBANDRY

Evan F. Ferrin, M.Agr., Head; P.A. Anderson, B.S.; Woodrow J. Aunan, Ph.D.; Lester E. Hanson, Ph.D.; Alfred L. Harvey, Ph.D.; R. M. Jordan, Ph.D.

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ENTOMOLOGY

Clarence E. Mickel, Ph.D., Head; Stanley Harris, M.S.; Mykola H. Haydak, Ph.D.

FORESTRY

Frank H. Kaufert, Ph.D., Director; Bruce A. Brown, M.F.

HOME ECONOMICS

Louise A. Stedman, Ph.D., Director; Nada W. Ahrens, B.S.; Hedda Kafka, M.A.; Juliette Myren, M.S.; Elizabeth Rivers, M.A.; Ella J. Rose, Ph.D.

HORTICULTURE

Leon C. Snyder, Ph.D., Head; Troy M. Currence, Ph.D.; Arthur E. Hutchins, Ph.D.; Robert A. Phillips, M.S.; Theodore S. Weir, M.S.; Richard E. Widmer, M.S.; James D. Winter, M.S.

PHYSICAL EDUCATION AND ATHLETICS

Joseph A. Nowotny, M.Ed.; Marion Anderson, B.S.

PLANT PATHOLOGY

J. J. Christensen, Ph.D., Head; Robert Campbell, M.S.; Thor Kommedahl, Ph.D.; Matthew B. Moore, M.S.

POULTRY HUSBANDRY

Elton L. Johnson, Ph.D., Head; Thomas H. Canfield, M.S.

PRACTICAL NURSING

Katharine J. Densford, M.A., R.N., D.Sc., Director, School of Nursing; Elizabeth Davidson, B.S.; Lily Larson, B.S.; Dorothy Titt, M.A.

PUBLIC HEALTH

Gaylord W. Anderson, M.D., Dr.P.H., Director, School of Public Health; Ruth E. Boynton, M.S., M.D., Director, Students' Health Service; Murray B. Bates, M.D., M.A.; Robert Hunt, M.P.H.; Ruth Stack, B.S.

RHETORIC

Ralph G. Nichols, Ph.D., Head; Monica Langtry, B.A.; Ella Oerting, Ph.M.

SCHOOL (GENERAL)

John O. Christianson, L.H.D., D.Sc., Superintendent; Ivar A. Glemming, M.S.; Elmer M. Johnson, B.S.; Thomas W. Larimore; Aganetha Loewen, M.A.; Ralph E. Miller, M.S.; Doris E. Nelson, B.S.; Victor Newcomb, M.S.; Henning Swanson, M.S.; Ralph E. Williams, M.Ed.

SOILS

William P. Martin, Ph.D., Head; Harold Arneman, Ph.D.

SCHOOL OF VETERINARY MEDICINE

William T. S. Thorp, D.V.M., M.S., Assistant Dean, Director of School of Veterinary Medicine; Archie L. Good, V.M.D., M.S.; A. F. Sellers, V.M.D., Ph.D., M.Sc.; John M. Sieburth, M.S.

GENERAL INFORMATION

THE MINNESOTA PLAN FOR A VOCATIONAL SCHOOL OF AGRICULTURE

Sixty-six years ago (1888) there was founded at the University of Minnesota the first vocational school of agriculture to be made a division of a great university. This is the "Minnesota Plan" which many states have copied and still use.

As in the beginning of the School, so now, the facilities of the University are available to the student body of the School of Agriculture.

On the faculty of the School are staff members who also instruct classes in the College of Agriculture, Forestry, and Home Economics, and the School of Veterinary Medicine. Many of them are outstanding leaders in their fields of instruction and research.

Another advantage School of Agriculture students have is the proximity to the outstanding centers of interest in the state here in the Twin Cities. The students become acquainted with the various leaders and institutions in all lines of activities through speakers at convocations and occasional tours. A wide range of topics, many of which relate to rural and agricultural problems, are discussed by outstanding men and women who speak to the students of the School of Agriculture at the convocations held four times a week at noon. These speakers include prominent state and national officials, businessmen, particularly those connected with the agricultural industries, professional men and women, prominent clergymen of all denominations, educators from other institutions, and successful farmers and homemakers.

At the School of Agriculture it is this association with those who are recognized as outstanding authorities in their fields, whether in class or convocations or in open meetings, which is a worth-while feature of the education of its students.

Who may come to the School of Agriculture?

The high school graduate is best equipped to pursue course work offered in the School of Agriculture. Young men must have one year of farm experience before applying for admission.

Non-high school graduates of mature years may be admitted on individual basis.

Who should come to the School of Agriculture?

The School of Agriculture is definitely set up to serve those rural high school graduates who desire to make farming, homemaking, practical nursing and home management, office training and home management, and food technician work their life vocation, and who, for one reason or another, do not plan on a four-year college course.

The age of the student body averages over 20 years.

With but few exceptions, the students entering the School of Agriculture are high school graduates.

The faculty of the School of Agriculture is suited by preparation and preference for instructing classes made up of mature, responsible young people who are high school graduates or who have finished at least two or three years of high school.

Because the present student body is made up largely of high school graduates the level of instruction is essentially on a post-high school level. Mature preparation for their vocations fits the graduates to take their places in a mature world.

Because of this, an increasingly large number of high school seniors from the farm are advised by their instructors to continue their education in the School of Agriculture and to follow the lines of their particular interests in specialized courses.

The entering high school graduate is given a blanket credit of 36 credits. This makes it possible for the high school graduate to complete the course in the School of Agriculture in two years of six months each. In the intervening summer, he must satisfy the summer project requirement.

Girls should come to the School of Agriculture.

Originally, when the School of Agriculture was founded, only young men were admitted and only courses in agriculture were taught.

But in 1896, the curriculum of the School was expanded to include courses in home economics and young women were admitted to the School of Agriculture. The year 1949 marked the fiftieth anniversary of the first graduation of young women from the School and saw the establishment of the course in Practical Nursing and Home Management. Upon completion of this six-quarter course in Practical Nursing and Home Management, the graduates are eligible to take the state board examinations to become licensed practical nurses.

At no time, however, have only the courses in home economics been open to young women. Courses in agriculture are offered them, as well as the regular courses in home economics, practical nursing, business and office practice, and food technician training.

Excellent and lucrative positions in practical nursing, business, and work as food technicians are open to young women who have completed these courses in the School of Agriculture.

Emphasis in the home economics courses in the School of Agriculture is placed on preparation for homemaking, to include the operation of a home and the care and rearing of children.

In addition the young woman who attends the School of Agriculture can take advantage of excellent instruction in music, both voice and instrumental, and cultural courses such as literature, history, public speaking, sociology, psychology, and dramatics.

REQUIREMENTS FOR GRADUATION

The diploma of the School of Agriculture is granted on the completion of:

1. The prescribed course of study, including all of the required work and enough elective work to make 113 credit hours for agriculture students, 1½ of which must be earned in summer project work taken each summer after the student has been in residence. Not more than 9 credits

of project work may be counted toward graduation. Home economics and related course students are required to complete 110 credits for graduation.

2. Physical education, 1 credit hour for each term of residence.
3. An honorable standing in department.

Home Projects

Putting science into practice on the farm and in the home is the aim of the summer projects. The School of Agriculture is organized on a plan which provides for teaching agriculture through six months of study at the School, October through March; and six months of supervised home project work on the farm. The purpose of the home project work is to give the students an opportunity to apply some phase of their classroom instruction to the operation of a farm or farm home.

The students may have free choice as to the nature of their projects but are advised to choose those connected with the class work being taken. Registration should be completed before the student leaves the School in the spring. At the time of registration a project book with forms suitable for recording the necessary data will be provided.

During the summer season the work of the students will be inspected by instructors from the School in so far as possible. The project book must be submitted to the classroom instructors and be graded by them and must have the final approval of the Student Work Committee. Home project work cannot be accepted for credit from students who are not properly registered *before* starting on the project.

THE STUDENT'S HEALTH

Because good health is one of the bases of good performance in school, the entering student is given a medical examination as he is admitted to the School of Agriculture. This is the first attention given to the students' health at the Students' Health Service on the St. Paul Campus. If corrective medicine is necessary, the student is asked to return for consultation and is advised what steps to take to remedy any adverse health conditions.

Preventive health methods are always stressed. Everything possible is done to protect the student from contagious diseases. He is encouraged to consult the staff of the Health Service at the first symptoms of any illness.

The Students' Health Service building on the St. Paul Campus houses the offices of the Health Service and the Students' Hospital and Dispensary. An X-ray room is one of the important features of the building. On the staff of the Health Service are always one or more physicians, a graduate nurse, a dentist, and an oculist.

The services of the hospital and dispensary are available at all hours of the day and night. Physicians on the staff are in attendance daily. Where the need arises, students are referred for consultation and treatment to medical specialists on the staff of the Minneapolis Campus Students' Health Service.

Each term, the student pays a health fee of \$9, included in the incidental fee, for the maintenance of the Students' Health Service. For this

fee, the student receives his medical examination and certain professional services of the staff.

For services which are specialized and individual in character, such as operations, board and laundry when a patient in the hospital, drugs, X rays, out-patient calls, dentistry, etc., special fees calculated on a cost basis are charged. However, no student will be denied medical services because of inability to pay those fees.

HOME LIFE ON THE CAMPUS

The life of the student while attending the School of Agriculture is subject to supervision. The home life of each student is carefully guarded, and everything is done to promote a healthful and moral atmosphere.

The use of alcoholic liquors of any kind is strictly forbidden.

The rooms shall at all times be quiet, especially in the evening, so that no student will be disturbed.

Anyone not in accord with these restrictions and not willing to lend a hand toward promoting a strong moral growth should not come to the School of Agriculture. It is the aim of the administration to be firm, reasonable, and sympathetic. A student who becomes antagonistic to the spirit of the School will be dismissed whenever the general welfare requires it. The School does not wish to undertake the problem of disciplining students who are not in sympathy with its purpose.

The students' social and dormitory life is supervised and directed by a member of the faculty.

A counselor is resident in each of the dormitories.

All regulations governing the campus life of the student are subject to the approval of the dean of the Institute of Agriculture and the superintendent of the School of Agriculture.

Each sleeping room is furnished with a bedstead, mattress, dressing bureau, chairs, and a table. The student provides sheets, blankets or quilts, dresser scarves, bedspread, pillow, pillowcases, and towels. Laundry is collected weekly and is returned a week later. This necessitates having a sufficient supply of clothing and bedding.

Each prospective student should request that a room be reserved in the dormitory by writing to the superintendent of the School of Agriculture.

EXTRACURRICULAR ACTIVITIES

Each Sunday morning at 8:45 throughout the school year, students of the School of Agriculture meet at a song service.

Other opportunities for the students to participate in school activities of their preference are afforded by the International Relations Club for those who are interested in world affairs, the Rural Youth Club, Camera Club, Dairy and Livestock Club, Alumni Chapter of Future Farmers of America, Practical Nursing Association, Student Forum, Rural Theatre Players for those interested in dramatics, Toasters Club, the Girls' Athletic Association, the extemporaneous speaking contest, and student religious groups, both Protestant and Catholic.

Students who play instruments, or sing, have opportunities of being members of musical groups such as the band, orchestra, vocal trios, quartets, glee clubs, ensembles, and chorus. These groups often appear at

convocations during the year, as well as at meetings of other groups and organizations in the cities. Students are occasionally asked to appear on the School of Agriculture radio program, "The Friendly Road," which is presented over the University Station KUOM (770) on Mondays at 12 noon.

The *Agreview*, the school paper, is published quarterly during the school year by a selected group of students under the supervision of a faculty adviser in cooperation with a joint student, faculty, and alumni committee. It aims to give publicity to matters of interest to students and alumni and to serve as a tie between the School of Agriculture and alumni.

The *Agrarian* is the yearbook published by the senior class of the School. Two faculty members are advisers for the staff of seniors who plan and prepare the yearbook for publication and sale. This book reviews and pictures the activities of the whole school for the year.

PHYSICAL EDUCATION—Recreation

Twofold Program—Broadly speaking, the Department of Physical Education has a twofold program. It is designed first to provide training in varied recreational physical activities with both pleasure and benefit to the student. Because participation is not enough, the student is also given training in the administration of those activities both in and out of school.

The outcome desired from this twofold program of training in both participation and administration of recreational physical activities is that students will find continuing pleasure in both of these fields in their own communities whether as youths or adults.

Athletics

Interscholastic—Competition in basketball and wrestling provides an opportunity for the men students to try their skills in competition with other schools and organizations. Much of this competition is with freshman and "B" squads of various Minnesota colleges. During the winter term the girls participate in basketball games with Park Board League teams. Athletics is regarded as an important phase of the activities of the Department of Physical Education, the aim of the interscholastic athletic program being to realize through proper organization and administration as many of the educational opportunities of athletics as possible.

Instruction and team and individual practice periods under competent coaches will be held the latter part of each afternoon at the gymnasium. Basketball and wrestling team practice start in November with scheduled contests beginning in December and extending through the winter quarter.

The athletic "M," one of the most highly prized awards, is given to those men and women who have achieved distinction in interscholastic athletics and have fulfilled the participation, scholastic, and citizenship requirements during the season.

Intramural—The intramural program provides for every student in the School of Agriculture the opportunity to enjoy and participate in athletics and recreational activities. Emphasis is placed on those sports

which develop leisure time interests and habits. Intramural athletics is a natural outgrowth of the required program of physical education.

A varied program of activities consisting of diamondball, touchball, football, horseshoes, table tennis, archery, swimming, basketball, volleyball, track and field meet, and boxing and wrestling tournaments is offered during the school year.

The Department of Physical Education and Athletics urges students to participate in the varied program and to use the facilities and equipment of the gymnasium. A large basketball court, running track, swimming pool, badminton and volleyball courts, archery range, handball and squash courts, separate boxing and wrestling rooms, golf driving nets, and social game room provide adequate indoor facilities, and the excellent recreational field adjoining the gymnasium offers opportunities to each student to take part in activities which are physically wholesome, mentally stimulating and satisfying, and socially sound.

STATE AID

State tuition aid is available for those students under 21 years of age who may not yet have completed high school and who qualify for entrance on basis of examination.

A rate of \$7 per month has been established to apply upon the tuition, laboratory, and equipment fees of such students.

In addition, students who qualify for state aid may receive \$5.50 per month as transportation or board aid.

STUDENT AID

The School of Agriculture has maintained a helpful policy in furnishing employment for students and in providing loans. The prospective student who desires to make application for such work or loan in order to help meet his expenses while attending school should write directly to the Superintendent, School of Agriculture, St. Paul Campus, St. Paul 1. Various organizations have maintained student scholarship and loan funds so that for any deserving young man or young woman from a farm in Minnesota who is really interested in attending the School, there is always a way of making that interest become an actuality. The *Ludden Trust*, the *Minnesota Farm Bureau Loan Fund*, and funds left by classes of 1902, 1916, 1924, 1925, 1929, 1930, 1931, and 1932 are available for temporary loans to students who are worthy and who need such help in order to attend. The *Dr. Willard L. Burnap Practical Nursing Loan Fund* is available to practical nursing students from the 8th Medical District in the Red River Valley area.

SCHOLARSHIPS

A fund willed by *Caleb Dorr* of Minneapolis furnishes each year cash prizes which are offered to students securing the highest standings in general scholarship. All students carrying the full work of 18 credit hours per term are eligible for these prizes. Prizes will be awarded at the close of the second term for the senior students graduating from the School of Agriculture with the highest scholarship.

The annual income from a fund of \$500, which was established in memory of *Peter Gideon*, the originator of the Wealthy apple, is divided into two prizes for the best home projects in horticulture.

Interest from the *Leroy Cady Scholarship Fund* of \$1,500, which was raised by popular subscription by the Minnesota Garden Flower Society, is used to aid deserving students who are pursuing courses in horticulture.

Sears, Roebuck and Company of Chicago, Illinois, has established a scholarship fund to aid worthy farm boys attending the School of Agriculture who show promise of scholarship and citizenship, who come from farm homes, and who intend to continue in agricultural work.

Minnesota Bankers Scholarships are available in many counties whereby a student is awarded a scholarship of \$100 per quarter by the local county Bankers Association or by a local bank. These scholarships are sponsored by the Minnesota Bankers Association.

A fund was provided by the 1953 *Legislature* to establish nursing scholarships, a part of which is available for training in practical nursing, on the basis of need, ability, and interest in nursing. Students who qualify and who are accepted for the Course in Practical Nursing may be granted scholarships up to \$300.

The *Red Owl Stores, Inc.* provide five practical nursing scholarships of \$200 each, available for the school year 1954-55.

The *Minnesota Livestock Breeders' Association* has made available the interest from a fund which has accumulated in connection with the Junior Livestock Show in memory of William A. McKerrow. These McKerrow scholarships are awarded to worthy boys and girls, who, in the light of their opportunities, have made commendable progress in livestock development and activities.

COST OF ATTENDING

The school year is made up of two terms of approximately three months each, the fall term beginning the early part of October and ending around Christmas time, and the winter term beginning the first part of January and ending the middle of March.

Table of Charges

(All university fees are subject to modification without notice.)

Tuition fee, per term	
Resident of Minnesota	\$ 21.00
Nonresident	28.00
Deposit, as guarantee for the return of books and equipment	5.00
Incidental fee, per term	18.00
Music fee, per course (private lessons if desired)	8.00
Room in dormitory, per term (price subject to change)	36.00
Board, per term (price subject to change)	133.00
Laundry, per term (price subject to change) (required of all in dormitories)	4.00

Such items as gymnasium suits, drawing instruments, notebooks, stationery, and supplies will, of course, be purchased individually by the student according to need.

Students registered in the Practical Nursing and Home Management curriculum will pay tuition at the School of Nursing rate during the spring and summer quarters when they receive instruction exclusively in nursing.

Tuition (spring and summer terms)	
Resident	\$ 41.00
Nonresident	60.00
Incidental Fee (summer only)	21.00
Health fee, in lieu of incidental fee (spring only)	5.00

The \$5 deposit fee, which is required at the time of enrolling, is refunded at the close of the school year when the student has returned all books and equipment satisfactorily, minus such charges as may be incurred for lockers, library penalties, breakage, damage, loss of equipment, etc.

The expenses given above are to be paid in full at the beginning of the term unless the student desires to pay his board and room by installments.

VETERANS

Korean veterans with questions regarding Public Law 550 may contact the University Bureau of Veterans Affairs.

YEARS OF OPPORTUNITY

Any young man or young woman in a rural area who is interested in more training along the line of agriculture, homemaking, or practical nursing and home management, office training and home management, and food technician work, may write to the Superintendent, School of Agriculture, St. Paul Campus, St. Paul 1, for further information about this school. The golden years between 17 and 25 come only once—they are the greatest years of opportunity that any person ever knows. The faculty of the School of Agriculture on the St. Paul Campus wishes to be of service to the youth of this state in helping them to make the most of those years.

CURRICULA

I. AGRICULTURE

Figures following the names of courses indicate the number of credit hours. One credit hour is equivalent to one class period devoted to recitation or lecture or to two such periods devoted to laboratory work.

For description of the courses listed in the following outline see pages 24-37 and for schedule of classes, see Schedule of Courses.

See page 7 for statement with reference to home project work.

Every student in agriculture who plans to graduate is expected to select one of the following curricula: (a) general farming, (b) farm mechanics, (c) horticulture, (d) livestock production, or (e) crop production.

Adults desiring special courses should consult the curriculum committee.

The program for men at the School of Agriculture is intended primarily for those who expect to return to the farm. With the increased complexity of operating a farm, with more mechanization and larger capital investments, successful management calls for a high degree of skill and knowledge through agricultural training such as provided in the School of Agriculture.

Some School graduates are occupying positions as *farm managers*. The demand for farm managers increases as farms are operated in larger units with hired help and more machinery. Young men who have had training at the School of Agriculture are especially fitted to go out as *testers for cow testing associations* and with *artificial breeding associations*. This is an excellent means of gaining valuable experience in dairy management.

A regular course is planned for those desiring to take up *landscape gardening and nursery work*. The instruction is very practical. Some of the most successful nurseries in the state are owned and managed by graduates of the School of Agriculture.

The School of Agriculture lays stress upon the adaptation of the student's curriculum to his future plans. In order to make this aim effective, every student is assigned to an adviser who helps him plan a program. Upon the recommendation of the adviser and with the approval of the Committee on Student Work and Eligibility the outlines of study summarized in the following pages may be varied.

Curricula for High School Graduates

The following curricula are planned for high school graduates who on basis of advanced credits may complete the three-year course in two years.

Note—Course names printed in **bold face** (heavy type) are requirements common to all two-year curricula in agriculture.

SCHOOL OF AGRICULTURE

GENERAL FARMING

JUNIOR YEAR—REQUIRED

Orientation, 1
 Personal Health, 1
 Farm Mathematics, 3
 Livestock Production, 3
 Mechanical Training, 3
 Rhetoric, 3
 First Aid, 1
 Animal Biology, 3*

Chemistry in Agriculture, 3*
 Agricultural Botany, 3*
 Forage Crops, 3
 Farm Dairying, 3
 General Poultry Management, 3
 Farm Records and Accounts, 3
 Physical Education†

SENIOR YEAR—REQUIRED

General Horticulture, 3
 Dairy Stock Feeding, 3
 Livestock Feeding, 3
 Farm Forestry, 3
 American Democracy, 3
 Livestock Breeding, 3

Farm Management, 3
 Grain Crops, 3
 Crop Breeding, 3
 Soils, 3
 Rural Sociology, 3
 Physical Education†

FARM MECHANICS

JUNIOR YEAR—REQUIRED

First Aid, 1
 Orientation, 1
 Personal Health, 1
 Farm Mathematics, 3
 Livestock Production, 3
 Gas Engines and Tractors, 3
 Principles of Mechanized Farming I, 3*

Farm Records and Accounts, 3
 Rhetoric, 3
 Agricultural Botany, 3*
 Chemistry in Agriculture, 3*
 Mechanical Training, 3
 Physical Education†

SENIOR YEAR—REQUIRED

Farm Management, 3
 Farm Carpentry, 3
 Soils, 3
 Farm Implements, 3
 Drawing and Farm Buildings, 3
 Farm Dairying, 3

Livestock Feeding, 3
 Grain Crops, 3 or
 Forage Crops, 3
 American Democracy, 3
 Rural Sociology, 3
 Physical Education†

HORTICULTURE

JUNIOR YEAR—REQUIRED

Orientation, 1
 Personal Health, 1
 Farm Mathematics, 3
 Soils, 3
 First Aid, 1
 General Horticulture, 3

Agricultural Botany, 3*
 Rhetoric, 3
 Mechanical Training, 3
 Chemistry in Agriculture, 3*
 Animal Biology, 3*
 Physical Education†

SENIOR YEAR—REQUIRED

American Democracy, 3
 Rural Sociology, 3

Bookkeeping I, 3*
 Physical Education†

OPTIONAL COURSES§

Home Floriculture, 3
 Greenhouse Management, 3
 Commercial Fruit Growing, 3
 Potato Production, 3
 Plant Propagation, 3

Special Problems in Horticulture,
 variable credit
 Landscape Gardening, 2
 Vegetable Gardening, 3

* Not required if student has high school credit for this subject.

† One course required each term in attendance.

§ A minimum of 12 credits must be selected from this group to fulfill graduation requirements in horticulture course.

LIVESTOCK PRODUCTION

JUNIOR YEAR—REQUIRED

First Aid, 1	Animal Biology, 3*
Orientation, 1	Agricultural Botany, 3*
Personal Health, 1	Farm Records and Accounts, 3
Farm Mathematics, 3	Farm Dairying, 3
Rhetoric, 3	American Democracy, 3
Livestock Production, 3	Physical Education†
Chemistry in Agriculture, 3*	

SENIOR YEAR—REQUIRED

Management and Care of Livestock, 3	Veterinary Studies, 3
Forage Crops, 3	Livestock Breeding, 3
Livestock Feeding, 3	Soils, 3
Dairy Stock Feeding, 3	Mechanical Training, 3
Rural Sociology, 3	Physical Education†
Farm Management, 3	

CROP PRODUCTION

JUNIOR YEAR—REQUIRED

Orientation, 1	Soils, 3
Personal Health, 1	Agricultural Botany, 3*
First Aid, 1	Chemistry in Agriculture, 3*
Rhetoric, 3	Forage Crops, 3
Farm Mathematics, 3	Livestock Production, 3
Mechanical Training, 3	Genetics and Eugenics, 3
Grain Crops, 3	Physical Education†

SENIOR YEAR—REQUIRED

General Horticulture, 3	Farm Management, 3
Farm Records and Accounts, 3	Crop Breeding, 3
American Democracy, 3	Dairy Stock Feeding, 3
Rural Sociology, 3	Potato Production, 3
Weeds, 2	Seed Testing, 2
Plant Diseases, 3	Livestock Feeding, 3
Insect Pests of Plants, 3	Physical Education†

Curricula for Non-High School Graduates

Students who are not high school graduates should register for the following courses.

Note—Course names printed in **bold face** (heavy type) are requirements common to all three-year curricula in agriculture.

GENERAL FARMING

FRESHMAN YEAR—REQUIRED

Rhetoric assignments will be made on basis of tests.

Orientation, 1	Soils, 3
Personal Health, 1	Animal Biology, 3*
Farm Mathematics, 3	Chemistry in Agriculture, 3*
Livestock Production, 3	How to Study, 1
Mechanical Training, 3	First Aid, 1
Agricultural Botany, 3*	Physical Education†

* Not required if student has high school credit for this subject.

† One course required each term in attendance.

SCHOOL OF AGRICULTURE

JUNIOR YEAR—REQUIRED

Forage Crops, 3
 General Horticulture, 3
 Dairy Stock Feeding, 3
 Livestock Feeding, 3
 Farm Records and Accounts, 3

Grain Crops, 3
 Farm Dairying, 3
 General Poultry Management, 3
 Farm Forestry, 3
 Physical Education†

SENIOR YEAR—REQUIRED

Livestock Breeding, 3
 Farm Management, 3
 American Democracy, 3

Rural Sociology, 3
 Crop Breeding, 3
 Physical Education†

FARM MECHANICS

FRESHMAN YEAR—REQUIRED

Rhetoric assignments will be made on basis of tests.

Orientation, 1
 Personal Health, 1
 Farm Mathematics, 3
 Livestock Production, 3
 Gas Engines and Tractors, 3
 Agricultural Botany, 3*

Mechanical Training, 3
 Chemistry in Agriculture, 3*
 How to Study, 1
 First Aid, 1
 Physical Education†

JUNIOR YEAR—REQUIRED

Principles of Mechanized Farming I, 3*
 Livestock Feeding, 3
 Farm Carpentry, 3
 Soils, 3
 Farm Records and Accounts, 3

Grain Crops, 3 or
 Forage Crops, 3
 Farm Dairying, 3
 Farm Implements, 3
 Physical Education†

SENIOR YEAR—REQUIRED

Drawing and Farm Buildings, 3
 Rural Sociology, 3
 Farm Management, 3

American Democracy, 3
 Physical Education†

HORTICULTURE

FRESHMAN YEAR—REQUIRED

Rhetoric assignments will be made on basis of tests.

Orientation, 1
 Personal Health, 1
 Farm Mathematics, 3
 Agricultural Botany, 3*
 Chemistry in Agriculture, 3*
 General Horticulture, 3

Soils, 3
 Mechanical Training, 3
 First Aid, 1
 How to Study, 1
 Physical Education†

JUNIOR YEAR—REQUIRED

Animal Biology, 3*

Physical Education†

SENIOR YEAR—REQUIRED

American Democracy, 3
 Rural Sociology, 3

Bookkeeping I, 3*
 Physical Education†

OPTIONAL COURSES‡

Home Floriculture, 3
 Greenhouse Management, 3
 Commercial Fruit Growing, 3
 Potato Production, 3
 Plant Propagation, 3

Special Problems in Horticulture,
 variable credit
 Landscape Gardening, 2
 Vegetable Gardening, 3

* Not required if student has high school credit for this subject.

† One course required each term in attendance.

‡ A minimum of 12 credits must be selected from this group to fulfill graduation requirements in horticulture course.

LIVESTOCK PRODUCTION

FRESHMAN YEAR—REQUIRED

Rhetoric assignments will be made on basis of tests.

Orientation, 1	Soils, 3
Personal Health, 1	Animal Biology, 3*
Farm Mathematics, 3	Chemistry in Agriculture, 3*
Livestock Production, 3	How to Study, 1
Mechanical Training, 3	First Aid, 1
Agricultural Botany, 3*	Physical Education†

JUNIOR YEAR—REQUIRED

Forage Crops, 3	Veterinary Studies, 3
Livestock Feeding, 3	Farm Dairying, 3
Dairy Stock Feeding, 3	Physical Education†
Farm Records and Accounts, 3	

SENIOR YEAR—REQUIRED

Rural Sociology, 3	Management and Care of
Farm Management, 3	Livestock, 3
American Democracy, 3	Physical Education†
Livestock Breeding, 3	

CROP PRODUCTION

FRESHMAN YEAR—REQUIRED

Rhetoric assignments will be made on basis of tests.

Orientation, 1	Grain Crops, 3
Personal Health, 1	Forage Crops, 3
Farm Mathematics, 3	Livestock Production, 3
Mechanical Training, 3	First Aid, 1
Agricultural Botany, 3*	How to Study, 1
Soils, 3	Physical Education†
Chemistry in Agriculture, 3*	

JUNIOR YEAR—REQUIRED

Livestock Feeding, 3	Seed Testing, 2
Genetics and Eugenics, 3	Potato Production, 3
General Horticulture, 3	Weeds, 2
Farm Records and Accounts, 3	Physical Education†

SENIOR YEAR—REQUIRED

Rural Sociology, 3	American Democracy, 3
Plant Diseases, 3	Crop Breeding, 3
Insect Pests of Plants, 3	Dairy Stock Feeding, 3
Farm Management, 3	Physical Education†

II. DAIRY HERD MANAGEMENT

This curriculum as arranged by the Dairy Department is designed primarily to train young men for Dairy Herd Improvement Association work, dairy herdsman work or employment in an artificial breeding association. A certificate will be issued at the end of this course.

* Not required if student has high school credit for this subject.

† One course required each term in attendance.

Fall

Physiology, 3
 Elements of Bacteriology, 3
 Farm Management, 3
 Farm Dairying, 3
 Forage Crops, 3
 Animal Biology, 3*
 Dairy Stock Judging, 2
 Farm Mathematics, 3

Winter

Milk Production, 3
 Practical Writing, 3
 Dairy Stock Feeding, 3
 Veterinary Studies, 3
 Dairy Cattle Management, 5
 Dairy Stock Selection, 3
 Dairy Testing, 1

III. HOME ECONOMICS

The primary purpose of the home economics curriculum is to train young women to become efficient homemakers. It is also possible for them to elect work along several different lines in preparation for wage earning.

Girls may elect business courses and prepare to become clerks, stenographers, or bookkeepers. This general training fits them particularly well for work in county agent offices or other similar offices.

Several School graduates are employed as county 4-H Club leaders. The training at the School equips those who have natural leadership qualities for these positions.

Positions as home managers are often taken by girls who have had School of Agriculture training.

Courses in music give, to those who have special ability along that line, an opportunity to learn to conduct community singing and orchestras and to give elementary instruction in music. Each girl makes her program under the direction of one of the members of the home economics faculty.

Curriculum for High School Graduates

In the following list of courses required in home economics curriculum for high school graduates, the course names printed in **bold face** (heavy type) are requirements common to both the home economics curriculum for high school graduates and the practical nursing and home management curriculum for high school graduates.

This home economics curriculum is planned for the high school graduate who on basis of advanced credit may complete the regular course in two years. Advanced courses are provided in all aspects of homemaking and electives may be chosen to meet individual needs and interests of students.

JUNIOR YEAR

Rhetoric, 3
 Orientation, 1
 Art in Everyday Life, 3
 Science Applied to the Home, 3
 Textiles and Dressmaking, 3
 American Democracy, 3
 Child Care and Development, 3

First Aid, 1
 Home Nursing, 3
 Advanced Meal Planning and Preparation, 3
 Personal Health, 1
 Physical Education†
 Electives, 9

* Not required if student has high school credit for this subject.

† One course required each term in attendance.

SENIOR YEAR

History of Civilization, 3
Foods and Nutrition, 3
 Home Planning and Furnishing, 3
 Home Management, 3
Household Buying, 3

Rural Sociology, 3
 Fabrics, 2
 Housing, 2
Physical Education†
 Electives, 9

Three-year Curriculum for Non-High School Graduates

Students who are not high school graduates should register for the following courses.

In the following list of courses required in Home Economics, three-year curriculum, the course names printed in **bold face** (heavy type) are requirements common to both the home economics three-year curriculum and the practical nursing and home management three-year curriculum.

FRESHMAN YEAR

Rhetoric assignments will be made on basis of tests.

Orientation, 1
Science Applied to the Home, 3
Selection and Preparation of Food, 3
Art in Everyday Life, 3
Clothing Planning and Construction, 3*
How to Study, 1

Advanced Meal Planning and Preparation, 3
Personal Health, 1
First Aid, 1
Physical Education†
 Electives, 9

JUNIOR YEAR

Foods and Nutrition, 3
 Textiles and Dressmaking, 3
American History, 3
 House Planning and Furnishing, 3
Animal Biology, 3

Child Care and Development, 3
Home Nursing, 3
Physical Education†
 Electives, 7

SENIOR YEAR

American Democracy, 3
Household Buying, 3
 Home Management, 3
 Housing, 2
Rural Sociology, 3

Clothing Problems, 3
 Fabrics, 2
Physical Education†
 Electives, 13

IV. PRACTICAL NURSING AND HOME MANAGEMENT

The purpose of the program in practical nursing and home management is to prepare persons interested in rural health to give needed nonprofessional nursing service in homes and institutions and to assist with management of homes.

Admission—Students are admitted once yearly in the fall quarter to the practical nursing and home management curriculum in the School of Agriculture. Applicants may be either married or single, must be at least 17 years of age, possess desirable personality traits and like to work with people. The high school graduate is best equipped to pursue the course work of the program, though the program is open also to non-high

* Not required if student has high school credit for this subject.

† One course required each term in attendance.

school graduates who satisfy minimum entrance requirements to the School of Agriculture. Applicants must pass a physical examination given by the Students' Health Service.

Objectives from the practical nursing standpoint:

1. To become a member of a group of practical nurses who will meet the standards for licensing, and will meet the needs of rural hospitals, rural homes, and rural community organizations.
2. To acquire the skills necessary for the performance of duties that may be assigned to a licensed practical nurse as an assistant to a registered nurse or doctor.
3. To develop an understanding of:
 - a. The fundamental problems involved in providing adequate care for the sick and injured in rural hospitals, rural clinics, and rural communities.
 - b. The inter-relationship of mental, physical, and emotional health.
 - c. The principles of prevention and control of disease.
 - d. The responsibilities and opportunities for service.
4. To develop personal growth as a citizen of the community.

Objectives from the home management standpoint:

1. To understand the problems involved in running a home where there is illness and to develop judgment in organization and management of the work.
2. To learn how to properly care for, control, and direct the children in the family.
3. To gain experience in planning, preparing, and serving attractive and nutritious meals to both sick and well family members.
4. To be able to make a home attractive and livable.
5. To know methods for proper care of home furnishings and equipment.
6. To develop ability to do sewing and know how to give clothing satisfactory care.
7. To keep morale of patient, family, and self at a high level.

Curriculum for High School Graduates

JUNIOR YEAR

Rhetoric assignments will be made on basis of tests.

Fall

Elements of Practical Nursing IA and B, 6
 Orientation, 1
 Psychology, 3
 Personal Health, 1
 Elements of Bacteriology, 3
 Home Management for Nurses, 3
 Science Applied to the Home, 3

Winter

Elements of Practical Nursing II, 8
 Advanced Meal Planning, 3
 Child Care and Development, 3
 Physiology, 3

Spring

Elements of Practical Nursing III, 15

Summer

Practical Nursing IV, 15

SENIOR YEAR

<i>Fall</i>	<i>Winter</i>
Clothing Planning and Construction, 3,* or Textiles and Dressmaking, 3	Art in Everyday Life, 3
Foods and Nutrition, 3	Rural Sociology, 3
Household Buying, 3	Rural Sanitation, 3
American Democracy, 3	First Aid, 1
Physical Education, 1	Physical Education, 1

The total program is completed at the end of the second winter quarter.

A certificate in practical nursing and home management will be granted by the School of Agriculture upon satisfactory completion of the curriculum. The graduates will be eligible for State Board of Examiners of Nurses examination for licensure as practical nurses.

Three-Year Curriculum for Non-High School Graduates

The following courses are required for practical nursing and home management students who are not high school graduates.

FRESHMAN YEAR

Rhetoric assignments will be made on basis of tests.

<i>Fall</i>	<i>Winter</i>
Orientation, 1	Art in Everyday Life, 3
Selection and Preparation of Food, 3	Child Care, 3
American History, 3	Physiology, 3
Physical Education, 1	First Aid, 1
Electives, 7	How to Study, 1
	Personal Health, 1
	Physical Education, 1
	Electives, 6

JUNIOR YEAR

<i>Fall</i>	<i>Winter</i>
Elements of Practical Nursing IA and B, 6	Advanced Meal Planning, 3
Elements of Bacteriology, 3	Elements of Practical Nursing II, 8
Science Applied to the Home, 3	Electives, 4
Home Management for Nurses, 3	<i>Spring</i>
Clothing Planning and Construction, 3,* or Textiles and Dressmaking, 3	Elements of Practical Nursing III, 15
Psychology, 3	<i>Summer</i>
Electives, 2	Practical Nursing IV, 15

SENIOR YEAR

<i>Fall</i>	<i>Winter</i>
Foods and Nutrition, 3	Rural Sociology, 3
Household Buying, 3	Rural Sanitation, 3
American Democracy, 3	Physical Education, 1
Physical Education, 1	Electives, 11
Electives, 2	

* Not required if student has high school credit for this subject.

V. OFFICE TRAINING AND HOME MANAGEMENT

Curriculum for High School Graduates

The purpose of the program in office training and home management is to give special training to persons who are interested in securing office positions in rural organizations, such as cooperative organizations, local elevators, and offices of county extension agents, as well as training for those who wish office positions in business or in county or other Government services. The program will also include special training in the science and art of efficient home management.

JUNIOR YEAR

Rhetoric, 3
Orientation, 1
Typewriting I, 3*
Stenography I, 3*
Bookkeeping I, 3*
First Aid, 1
Physical Education, 1
Science Applied to the Home, 3
Textiles and Dressmaking, 3
Typewriting II, 3*

Stenography II, 3*
Office Practice I, 3
Office Training, 1
Personal Health, 1
Leaders and Leadership, 3
Physical Education, 1
Advanced Meal Planning and Preparation, 3
Child Care and Development, 3

SENIOR YEAR

Typewriting III, 3*
Stenography III, 3*
Commercial Law I, 3
Stenography V, 3
Office Training, 1
Physical Education, 1
Foods and Nutrition, 3
Household Buying, 3
American Democracy, 3

Typewriting IV, 3*
Stenography IV, 3*
Office Training, 1
Stenography VI, 3
Physical Education, 1
Art in Everyday Life, 3
Rural Sociology, 3
Rural Sanitation, 3
Home Management, 3

SUGGESTED ELECTIVE COURSES

Rhetoric, 3
Bookkeeping II, 3*
Commercial Law II, 3
Office Practice II, 3
Practical Mathematics, 3
Psychology, 3
Office Training, 1
Home Care of the Sick, 3
Foods for Special Occasions, 3
Office Procedure, 3

History of Civilization, 3
Parliamentary Law, 3
Problems and Participation in Government, 3
Marriage and the Family, 3
Elements of Bacteriology, 3
Music, 3
Home Crafts and Housing, 5
Fire Prevention and Safety, 2

VI. TRAINING FOR FOOD TECHNICIANS

Curriculum for High School Graduates

This is a curriculum arranged by the School of Agriculture in cooperation with the University Hospitals of the University of Minnesota to train food technicians for work in hospitals and other institutions. The entire course will cover nine months. At the end of the course a certifi-

* Not required if student has high school credit for this subject.

cate will be issued. The spring term will be taken at the University Hospitals on the Minneapolis Campus.

Fall

Elements of Bacteriology, 3
 Psychology, 3
 Foods and Nutrition, 3
 Personal Health, 1
 Orientation, 1
 Home Management for Practical Nurses, 3
 Household Buying, 3
 Science Applied to the Home, 3
 Beginning Swimming, 1
 Food Service Experience, 2

Winter

Rhetoric, 3
 Leaders and Leadership, 3
 Rural Sanitation, 3
 Team Games, 1
 Advanced Meal Planning and Preparation, 3
 Typewriting I, 3*
 Child Care and Development, 3
 Advanced Food Service Experience, 3

Spring

Diet Laboratory, 2 weeks
 Diabetic Clinic, 2 weeks
 Pediatric Stations, 2 weeks
 Medical Diet Therapy, 2 weeks
 Cafeteria Service, 2 weeks
 Social Service Department, 2 weeks
 Nutrition Office, 1 week

For description of work given at the University Hospitals during spring quarters, see pages 37 and 38.

* Not required if student has high school credit for this subject.

DESCRIPTION OF COURSES

AGRICULTURAL BIOCHEMISTRY

- A4. Chemistry in Agriculture.** A survey discussion—lecture course indicating the important part that chemistry plays in agriculture and modern civilization.

AGRICULTURAL ECONOMICS

- A21. Farm Records and Accounts.** Practice in recording and analyzing a year's business for a Minnesota farm. Forms and procedure for recording inventories, cash receipts and expenses, crop acreages and yields, feed for livestock, family living from the farm, and other information concerning the farm business. Calculation of earnings and management efficiency.
- A22. Farm Management.** Farm selection and farm tenure: tenancy and farm leases, personal and business factors affecting farm financial success; factors affecting the selection of crops and livestock for a particular farm and efficiency of use of labor, power, and equipment.
- A23. Farm Organization and Planning.** Special problems in organizing and planning the student's home farm based on summer project records kept by the student and his family. Special emphasis on selecting and organizing the cropping systems and livestock enterprises which seem to best fit the farm.
- A43. Economics.** Principles underlying the economic processes of production, consumption, and distribution of income. A study of forces affecting prices. The economic relationships between agriculture and the national and international economy. Some attention is given to programs designed to improve the position of agriculture.
- A44. Marketing.** Elementary principles of the marketing of farm products, marketing services, and marketing organization for Minnesota farm products. Principles of cooperation. A brief review of cooperative marketing of farm products in Minnesota.
- A49. Farm Finance.** A brief review of elements of money and banking. The relation of money and banking systems to price levels and business activity. The sources, methods, and problems of production and mortgage credit for farmers.

AGRICULTURAL ENGINEERING

- A10. Farm Implements.** Selection, operation, and care of farm machinery, also the cost, depreciation, and adaptability of the various machines to the work to be accomplished.
- A11. Farm Engines and Tractors.** Fundamentals of spark ignition and Diesel engines and their application to farm tractors. Operation and maintenance practices relating to the tractor engine, accessories, and drive units. Tractor selection.
- A16. Mechanical Training.** General. Instruction and laboratory practice in rope splicing, knots, belt lacing, pulleys, soldering, electric wiring.
- A17. Metal Working.** Instruction and laboratory practice in pipe fitting, valves, cold metal work, oxyacetylene welding, brazing, cutting, and electric arc welding.

- A18. Principles of Mechanized Farming I.** Principles of elementary mechanics and heating with special applications to farm equipment and practices.
- A19. Principles of Mechanized Farming II.** Principles of electricity, sanitation and water supply, drainage and irrigation and their use on the farm.
- A22. Farm Carpentry.** Instruction and practice in the use of woodworking tools and machines, and the construction, repair, and maintenance of lumber-built farmstead equipment. Practice in tool sharpening, glazing, and painting.
- A23. Building Construction.** Instruction and practice in the framing of farm buildings. Foundation, floor, wall, and roof construction.
- A32. Drawing and Farm Buildings.** Preparation and interpretation of working drawings. The functional requirements of farm buildings including space, arrangement, temperature, lighting, ventilation, and sanitation.

AGRONOMY AND PLANT GENETICS

- A1. Grain Crops.** The history, culture, and uses of the important grain crops and corn.
- A2. Forage Crops.** The identification, culture, harvesting methods, storage, value for feed and market, and uses for soil conservation of the important forage grasses and legumes.
- A3. Genetics and Eugenics.** The laws of heredity with plants, animals, and human beings, inheritance of important characters in man, including physical abnormalities, mental deficiencies, intelligence, etc., and the relation of these principles to problems of race improvement.
- A4. Crop Judging.** Identification of farm crops, weeds, and plant diseases from plant and seed specimens, varietal identification, practice in judging wheat, oats, barley, flax, alfalfa, sweet clover, red clover, alsike clover, and soybeans.
- A5. Crop Breeding.** Modern methods of breeding and propagating the various farm and horticultural crops with plans for growing and certifying pedigreed seed.

ANIMAL HUSBANDRY

- A3. Livestock Production.** The products and adaptations of farm animals; specialized livestock production enterprises; characteristics and adaptations of the pure breeds; the market classes and grades of farm animals; practice in judging livestock.
- A4. Farm Butchering and Curing of Meats.** Lectures, demonstrations, and practice in slaughtering and dressing animals and in cutting and curing meats. The selection and preparation of meat cuts for locker storage.
- A5. Livestock Breeding.** Livestock improvement and variation: heredity, environment, and selection as factors therein; line breeding, inbreeding, crossbreeding, and grading up; the purebred sire; pedigree registration; practical breeders' problems.
- A6. Livestock Judging.** Practice in judging horses, cattle, sheep, and hogs from the marketing and breeding standpoint.
- A7. Utilization of Meats.** Lectures on methods of utilizing cuts from the beef, pork, and lamb carcass; freezer-lockers for the home and

their efficient use; laboratory practice in preparing cuts of meat for cooking; sausage making; and lard rendering. (This course is intended primarily for women students although it is also open to men students.)

- A9. **Livestock Feeding.** The important principles involved in the selection and preparation of feeds; methods of feeding beef cattle, swine, sheep, and horses.
- A10. **Management and Care of Livestock.** Planning the livestock enterprise, the business side of livestock production, buying and selling animals, housing, care and sanitary measures.

DAIRY HUSBANDRY

- A1. **Dairy Stock Feeding.** The principles of feeding. A study of feed-stuffs and formulation of rations for dairy animals. Feeding problems.
- A2. **Farm Dairying.** Development of the dairy industry, breeds of dairy cattle, composition and properties of milk and milk products, dairy farm sanitation, care and operation of dairy farm equipment.
- A3. **Dairy Stock Judging.** Analysis and evaluation of type standards and of the structure, function, growth, and inheritance involved in the practice of judging. Relation of form and function.
- A5. **Milk Production.** A study of the problems in dairy herd management, raising of calves and young stock, and factors influencing the cost of producing milk.
- A7. **Dairy Stock Selection.** An evaluation of inherited characteristics of dairy cattle useful in selecting herd sires and foundation females through consideration of breed differences, methods of measuring transmitting ability and pedigree analysis.
- A8. **Dairy Testing.** Laboratory practice in use of the Babcock test and other simple tests for milk and milk products. (Offered 1954-55 and alternate years)
- A9. **Dairy Cattle Management.** Practical management of the dairy herd including care of herd sires and females of all ages. Involves practical laboratory work.

ENTOMOLOGY AND ECONOMIC ZOOLOGY

- A1. **Animal Biology.** Fundamental principles of animal life such as metabolism, respiration, digestion, growth, and reproduction. The more important groups of the animal kingdom and their relation to man.
- A5. **Elementary Beekeeping.** Fundamentals of bee behavior and of beekeeping practice during the year. Spring management. Swarming. Swarm control and increase. Pollination. Honey production, processing, and food value. Queen rearing and requeening. Feeding. Wintering of bees. Bee diseases and enemies.
- A6. **Advanced Beekeeping.** Commercial and out-apiaries. Migratory beekeeping. Package bees and nuclei. Home queen rearing. Marketing of honey.
- A16. **Insect Pests of Plants.** Life cycles of insect pests injurious to cultivated plants and methods of combating them.
- A18. **Special Problems.** Properly qualified students will be given opportunity to carry on individual work in biology, economic entomology, and beekeeping. In each case consent of the instructor must be obtained in advance.

FORESTRY

- A1. Farm Forestry.** Tree identification. Farm woodland management. Preservative treatments for farm timbers and fence posts. Marketing of woodlot products. Planting and care of farm windbreaks, shelterbelts, Christmas trees, and erosion control tree plantings.

HOME ECONOMICS

- A2. Clothing Planning and Construction.** A study of the student's clothing needs for the improvement of personal appearance. The care and repair of clothing, cleaning, laundering, and study of cotton clothing. The construction of a cotton garment.
- A4. Textiles and Dressmaking.** The selection of suitable fabrics and designs for clothing. The construction of dresses or other garments for school and home use. Tailored technique applied to rayon or wool fabrics.
- A5. Clothing Problems.** The application of design, textile, and economic information to the problems of assembling a wardrobe. The planning and construction of garments suited to the student's needs.
- A6. Housing.** A study of farm housing needs, making best use of present housing, minor repairs and safety measures, kitchen planning, cost of housing in relation to the family budget.
- A8. Fabrics.** A study of textile fibers and fabric structures. Projects in the selection, use and care of fabrics for clothing and house furnishings.
- A21. Art in Everyday Life.** The principles of design and color applied in the selection of clothing and home furnishings. Actual experience in room arrangement. Craft projects.
- A26. House Planning and Furnishing.** A consideration of the house in relation to the needs of the family. Consideration will be given to location, exterior design, convenient arrangement of floor space; selection of interior finish, wall and floor coverings, furniture, curtains, and pictures; furniture refinishing.
- A27. Foods for Special Occasions.** Planning and preparing unusual dishes which add variety to meals. Foods used in other countries. Foods for home hospitality.
- A28. Home Crafts.** The principles of design and color harmony are applied to articles made of wood, metal, paper, and fabrics.
- A31. Selection and Preparation of Food.** A study of food in relation to the planning, preparation, and serving of the day's meals. The use and care of kitchen and dining room equipment. Methods of food preservation.
- A32. Advanced Meal Planning and Preparation.** Food study in relation to the preparation and serving of meals. Food combinations, marketing, freezing of foods, and plans for family meals. Opportunity for small groups to prepare and serve meals suited to family needs.
- A33. Foods and Nutrition.** A study of the food needs for optimum health of individuals and families. Food for different individuals, infants, children, and the sick. Foods for diet and disease. Preparation of foods to conserve nutritive quality.
- A34. Home Management.** Analysis of the problems of the homemaker as manager. Selection and use of techniques for utilizing material and

human resources for greater efficiency and happiness. Planning for hospitality.

- A35. Child Care and Development.** A study of the factors influencing the proper growth (mental, physical, emotional, and social) of the small child. A discussion of the best literature and toys for children's use. Direct experience is provided for observation of children in their own homes and in groups.
- A37. Household Buying.** A study of the availability, the market, the price, the basis for selection, and the methods of purchase of commodities in common use by the average person or family.
- A39. Advanced Foods.** A study of desirable standards for foods for home use and for salable products. Development of skill in their preparation. Food purchasing.
- A40. Home Economics Projects.** Students may select a project in the home economics field with guidance, carry on independent work, report to the teacher at intervals, and make a final report. Credit will be granted according to the quality of the completed project.
- A50. Science Applied to the Home.** A study of certain science principles and applications that relate to foods, textiles and clothing, equipment, electricity, and the physical care of the home.
- A53. Home Management for Practical Nurses.** A study of the care and management of the home under conditions of illness or other emergencies.
- A73. Problems in Home Living.** The study of the selection of food; fundamental processes of cooking; adequate food for the family; financial management; selection and care of clothing; family and community relationships. (This course is planned for young men)
- A74. Food Service Experience.** Class discussion and laboratory practice in the service of foods in cafeterias and for special meals.
- A75. Advanced Food Service Experience.** Class discussion and advanced laboratory practice in food preparation, cafeteria service, and special meals.

HORTICULTURE

- A1. General Horticulture.** Landscape planning and care of ornamentals; growing and storing vegetables; growing fruits on the farm; preservation of garden products by freezing.
- A2. Commercial Fruit Growing.** An advanced course in the production and handling of orchard and small fruits. (Open to students who have completed A1 or to students who obtain consent of the instructor)
- A3. Vegetable Gardening.** Growing of vegetable crops for market. Locating, planting, and care of the commercial garden; consideration of the important crops; marketing methods; types of glass structures, their uses, and the production of vegetables under glass.
- A5. Plant Propagation.** Methods of propagation of plants by seeds, cuttings, layers, grafting, and budding are studied.
- A7. Home Floriculture.** A working knowledge of the culture and use of house plants and garden plants.
- A8. Landscape Gardening.** Practice and principles of landscape planning and planting as applied to the home and community, with special reference to the small place and the farmstead.
- A10. Greenhouse Management.** Management of the greenhouse from the viewpoint of the commercial flower grower. Subjects studied include

greenhouse construction, factors influencing plant growth, cut flowers, pot plants, foliage plants, greenhouse troubles, and production costs. Practice work in the greenhouse and trips to commercial ranges are included. (Minimum of six students required)

- A14. Potato Production.** Growth, climatic requirements, regional distribution, standardization of varieties according to soil, climate, and markets. Identification, exhibiting, judging, handling of seed plots, certification, cultural methods, storage, and marketing.
- A15. Special Problems in Horticulture.** Individual instruction in the various phases of horticulture adjusted to meet the needs of the student. (Credit may be earned in one or more quarters)

PHYSICAL EDUCATION AND ATHLETICS FOR MEN

The Department of Physical Education and Athletics attempts to present to the student a well-rounded program embracing required physical education, interschool athletics, and intramural activities to provide for growth and development of the physical, psychological, social, and recreational abilities of each individual.

Intramural or interclass athletics are organized and established to provide the opportunity and enjoyment of participation in athletic activities for every student of the School. Student recreation and health is the purpose of the varied intramural program offering activity in softball, touchball, touch football, horseshoe, table tennis, archery, swimming, basketball, volleyball, track and field meet, boxing and wrestling tournaments, ice skating, and social dancing.

Interscholastic competition with other schools of agriculture and colleges in basketball, swimming, and wrestling is an important part of the school program each term.

All students should register for a regularly scheduled class in physical education as listed below. The student may try out for any athletic team, and, if he becomes a sports squad member, the physical education director will excuse that student from the class in physical education for which he has registered. When the student is no longer a squad member, he will return to the class for which he was originally registered.

The required physical education course activities consist of the following:

- A1. Physical Education Activities.** Development of skills and sports fundamentals; a comprehensive knowledge of rules, techniques, and strategies; body control, team play and cooperation; and the health habits and safety factors associated with these various physical activities. *Fall term*—softball, touchball, speedball, volleyball, tumbling, swimming; *winter term*—basketball, track, boxing, wrestling, volleyball, handball, marching, social games, tumbling and pyramids, ice skating, hockey, and skiing.
- A2. Beginning Swimming.** For nonswimmers and those unable to swim in deep water. Health and safety factors in the pool; developing confidence in the water; elementary strokes; artificial respiration.
- A4. Social Games and Recreational Sports Activities.** Instruction in social games of both the active and the quiet type. Games for home play with the family or small groups as a unit, coupled with the construction of play and game apparatus and materials by the individual in the home or in the rural workshop. Mixers, singing games,

square dances, games both quiet and active, hiking, bicycle outings, art and craft, camping, rifle shooting, and hobbies are stressed.

- A5. Sports and Recreation Administration.** Leadership, initiative factors in sports; development of play and recreation facilities; principles of physical education; practice in administration and organization of various athletic events; history of sports; rural recreation organizations.
- A6. Advanced Swimming.** Instruction for those individuals able to swim in deep water. Technique of basic swimming strokes, development of endurance and stamina for distance swimming, methods of water rescue, and diving.

PHYSICAL EDUCATION AND ATHLETICS FOR WOMEN

The physical education program for girls at the School of Agriculture has been planned to meet their particular needs and interests. A variety of activities is offered by the department each quarter which gives the student skills and games to use during her leisure time at home and school. Class experience is given in leading games and sports suitable for use in recreational programs in the rural community. The offerings of the department include activities in the following areas of the field of physical education: rhythms, team games, individual and dual games, aquatics, conditioning exercises, and posture. During the time the student takes work in this department she is encouraged to select activities from each of these areas. Individual programs are planned with the instructor during the physical education conference time. The results of the health examination as well as the particular interests of each are considered in scheduling the student's physical education program for each quarter's work. The importance of correct posture is stressed during the teaching of all activities. Special help in posture correction is given individually to those needing it. Instruction in healthful living is an important part of all class work.

An excellent recreational program is arranged through the Girls' Athletic Association in which every girl registered in the School is a member. Opportunities for participation in class and inter-school tournaments are provided. Through this program the girls can meet new friends, develop desirable social qualities, and enjoy wholesome recreational activities under experienced leadership. The activities offered are: basketball, volleyball, archery, swimming, badminton, skating, shuffleboard, table tennis, track, and softball.

- A1. Team Games.** An opportunity for experience in team games of softball and volleyball (fall quarter); and basketball and volleyball (winter quarter). Discussion of rules and techniques of various skills of each sport.
- A2. Individual and Dual Sports.** Instruction in archery, shuffleboard, badminton, and table tennis.
- A3. Rhythmical Activities.** Instruction in folk dancing, singing games, social dancing, American country dance, and musical mixers.
- A4. Beginning Swimming.** A course for those who do not know how to swim or who are not confident in deep water. Instruction is given in elementary strokes, diving, and water emergency measures.
- A5. Lifesaving and Water Safety.** Instruction in junior and senior life-saving tests and methods of water rescue which have been set up by the American Red Cross.

- A6. Recreational Leadership.** Instruction in organizing, conducting, and planning a program of recreational activities for various age levels. Knowledge of team games, individual sports, social games, and mixers, presented with the idea of developing teaching ability and leadership.
- A7. Intermediate and Advanced Swimming.** Instruction in basic swimming strokes, correction of self-taught swimming activities to more efficient movements, water emergency measures, diving, and water safety.

PLANT PATHOLOGY AND BOTANY

- A1. Agricultural Botany.** The structure and life processes of economic plants and their relation to agricultural practices. Growth, absorption, food manufacture, reproduction, and respiration. The dependence of man and animals on green plants. The nature of fungi and bacteria, and their importance in causing disease and decay.
- A2. Seed Testing.** The seeds of the common farm weeds, with special attention to those of noxious weeds. A set of seed cases is made and practice is given in testing seeds for purity and germination.
- **A11. Plant Diseases.** Important diseases of fruit, vegetable, and field crops in Minnesota, with emphasis on the nature of the cause and methods of control.
- A12. Weeds.** Farm weeds, with special emphasis on their identification, control, and eradication.

POULTRY HUSBANDRY

- A11. General Poultry Management.** A study of the problems of chicken production including brooding and rearing, selection, breeding, housing, feeding, marketing, diseases, and general management.
- A12. Poultry Selection and Marketing.** Lectures and laboratory practice in selecting chickens for laying and breeding purposes; dressing and grading poultry; candling and grading eggs; caponizing, debeaking, and other miscellaneous poultry farm practices.
- A14. Turkey Production.** A study of the problems of commercial turkey production including breeding and selection, incubation, brooding and rearing, feeding, diseases, and marketing.

PRACTICAL NURSING

- PN A1A. Elements of Practical Nursing IA.** Principles basic to and practice in practical nursing, meaning of health and illness, safety measures, patient care, community resources.
- PN A1B. Elements of Practical Nursing IB.** Introduction to care of patient in hospital and home; working with others.
- PN A2. Elements of Practical Nursing II.** Development of practical nursing skills through continued instruction and supervised experience in care of the less critically ill, chronically ill, and convalescent adult in the general hospital.
- PN A3. Practical Nursing III.** An orientation to the practical nurse's role in community life and rural health program through continued in-

struction and supervised experiences gained in a selected rural community and hospital; includes maternal and newborn care, observation and experience in public health facilities, and other facilities for health care.

PN A4. Practical Nursing IV. Practical nursing in special situations; instruction and selected experiences in care of patients with special conditions and in the team relationship assisting the professional nurse in the care of the acutely ill adult and child; experience in care of the chronically ill and aged in selected nursing homes. Vocational relationships and ethics for the practical nurse as a member of the health team and of the community.

PUBLIC HEALTH

- A1. Personal Health.** Methods of promotion of health and prevention of disease; fundamentals of healthful living; individual and community activities against the spread of disease.
- A2. First Aid.** Emergency care of accidents and injuries. Lectures and demonstrations. (Given by American Red Cross.)
- A4. Rural Sanitation.** Disposal of excreta, sewage, and other waste; location, construction, and operation of rural water supplies; sanitary production, handling, processing, and serving of food; control of animals and insects involved in the spread of disease; ventilation and air conditioning; farm and home safety.
- A6. Home Nursing.** The place of the home nurse in the family and the community. Further discussion and demonstration of underlying principles and procedures used by the home nurse. Laboratory sessions for practice.

RHETORIC

- A1. Reading Improvement.** Reading laboratory required of all students with reading ability below the norms for high school juniors on a standardized reading test. Designed to improve speed and efficiency in reading.
- A5. Practical Writing.** Writing of letters; inquiry, order, complaint, application. Minutes, reports, publicity, news items. Help with written assignments in other courses.
- A6. Practical Speech Making.** An elementary course in the composition and delivery of speeches. Emphasis on performance.
- A11. Books and Reading.** Exploration into types of present-day reading; journalistic article, biography, short story, novel. The place of reading in home and community life; planning a long-time reading program.
- A15. Creative Writing.** Original writing emphasizing personal experience. Scripts for community use; radio and club programs. Publication of best writing in a multilithed booklet.
- A16. Speech in Community Life.** Four kinds of public discussions; organizing and conducting programs; demonstrations; introductions and commemorative talks.
- A21. American Speech for Foreign Students.** Individual help in the improvement of vocabulary, enunciation, pronunciation, and idiomatic usage. Practice in oral reading.

SCHOOL

General

- A1. Farm Mathematics.** Practical problems involving mathematical processes concerned with measurements of material, extension, capacity, and areas are applied to the modern farm and home.
- A12. Acting I.** Training in the fundamentals of speech. The physical mechanisms of voice production, voice control, interpretative reading, control of the body, and complete acting scenes.
- A13. Acting II.** Advanced training in all the phases of acting. Reading the play, approach to the part, responsibilities of the actor, characterization, motivation, and polishing the part. Each member to participate in a one-act play given before an audience as part of the class work. Also helpful information and practice in costuming and make-up.
- A14. Play Production.** The director's approach to producing the play in the rural community. Choosing the play, planning the action, choosing the cast, rehearsal procedure, developing characterization, coordinating the play, the final week, and production of the play. Actual laboratory work in all these technical phases done on the regular plays of the season.
- A15. Sight Singing and Conducting.** Basic course for students of instrumental or vocal music. Training in sight reading and technique of conducting, with emphasis on preparing students for leadership in the music groups of their own communities.
- A21. Elements of Music.** Improvement of general musicianship. Fundamental principles of musical notation, pitch, rhythm, musical terms, formation of major scales, musical forms, and acoustics. Preparation for the study of harmony.
- A22. Harmony I.** Chord construction. Aural and visual recognition of chords. Dissonance and consonance. Four-part writing. Study of melody and its harmonization.
- A23. Chorus.** Accompanied and unaccompanied choral music of graded difficulty. Trios, quartets, etc., will be developed from among students of ability as shown through voice tests. Several public appearances and radio performances of the chorus work will be given.
- A24. Violin.** Elementary: Hoffman, *Kayser Etudes*, *SchradiECK*, *Scales*, *Solos in Comparison*. Intermediate: scales in all positions, Sevcik, Mazas, Dont, compositions of medium difficulty. Advanced: Kreutzer, Fiorillo, Rode, Gavinie, sonatas of Handel, Gade, David, concertos of Viotti, De Beriot, Mendelssohn. (Ten thirty-minute lessons; \$8 per term)
- A25* Piano.** Elementary and advanced technical training, scales, arpeggios, octaves, chords, selected technical studies. Bach: *Inventions*, *Well-Tempered Clavichord*. Sonatinas: Clementi, Kuhlman; sonatas: Haydn, Mozart, Beethoven. Solos for all grades; classics and best modern material. (Ten thirty-minute lessons; \$8 per term)
- A26. Instrumental Music.** Band and orchestral instruments, such as cornet, clarinet, saxophone, trombone, baritone, alto horn, tuba, etc., using standard textbook containing latest methods. (Ten thirty-minute lessons; \$8 per term)

* Piano students may register for orchestra and receive training through piano quartet (two pianos), subject to the approval of the instructor.

- A27. Orchestra.** Standard works in orchestral music. Special attention is given to interpretation, rhythm, phrasing, intonation, and sight reading.
- A28. Voice.** Fundamentals of voice production, i.e., breath control, freedom of articulating muscles, resonance, pure vowel sounds, diction, projection of voice. Vocal studies, exercises, and songs to meet individual requirements. (Ten thirty-minute lessons; \$8 per term)
- A29. Harmony II.** Formation and progression of triads, seventh and ninth chords. Harmonizing given bass. Harmonic analysis and creative writing.
- A31. Choral Class.** Students showing special aptitude and interest in choral music are given an opportunity for more advanced instruction and participation in a very active musical life while at school. It is intended to perform each year at least one opera or a comparably large vocal work with talent drawn largely from this group.
- A32. Appreciation of Music.** Brief history; biographies of well-known composers; and a knowledge of standard musical literature for the orchestra, band, chorus, solo work, and any combination or group of instruments or voices.
- A33. Organ.** Elementary and advanced technical training. Ability to read piano music fluently is essential in this course. (Ten thirty-minute lessons; \$8 per term)
- A34. Band.** Ensemble playing, sight reading, breathing, scales, intonation, phrasing, rhythm, and practical band experience is given. Best standard musical literature. Advanced methods in nonpressure tone production and attack. Three hours a week individual practice.
- A40. Leaders and Leadership.** Study of types of leaders, origins, social stimuli, personality, character, and organization. An analysis of leaders, applied to rural activities and organizations.
- A41. Parliamentary Law.** Principles of parliamentary law, how to organize a society, duties of officers, how to record proceedings, and how to conduct meetings. Students will be given practice under the direction of the instructor.
- A42. Field Work in Leadership.** This course is designed primarily for students contemplating work as volunteer local leaders of a 4-H club or for those planning to do county 4-H club leadership work. Special training will be given in subject matter, demonstrations, and recreation leadership. Opportunity for laboratory experience in leading local clubs will be offered.
- A46. Rural Sociology.** A practical course including a study of rural conditions, how to make a survey, the causes of present conditions and how they may be improved. Study of rural organizations, religions, and educational institutions.
- A47. American History.** Causes and effects of great movements are emphasized. History of the westward migration, immigration, foreign relations, and special emphasis on our history since 1900.
- A48. History of Civilization.** A survey of the social, political, and economic backgrounds of the ancient and medieval civilizations, contributions of their science, art, literature, laws, institutions, and thought to the present.
- A53. American Democracy.** The objective is the preparation of an intelligent citizenship for participation in a government by the people. The operation and function of the executive, legislative, and judicial departments; trends in national and state interrelationships; civil

rights and popular control; what makes for democracy and dictatorships; description of contemporary governments and political ideologies; trends toward socialization.

- A54. Problems and Participation in Government.** Context concerns itself with background of our local government. The organizations, powers and functions of the school, the township, the village, the county, and the state governments. Weaknesses and criticisms of local governments, and recommendations for improvement. Field trips to visit local units of government in action.
- A58. Marriage and the Family.** Marriage as an institution; evolution of the family; development of family unity and disunity; the roles of the several members of the family.
- A60. German I.** Conversational section. By using the oral approach, the course aims to give the student knowledge of the elements of grammar and the facility to read and speak easy German.
- A63. Conversational Swedish.** Practice in conversational Swedish of today with subject matter drawn from immediate everyday material and from present-day Swedish life.
- A64. German II.** Conversational section. A continuation of the oral approach as used in German I to give the student knowledge of the elements of grammar and the facility to read and speak easy German.
- A65. Fire Prevention and Farm Safety.** A discussion type of course using all available visual aids. Taught with the cooperation of State Fire Marshal, Fire Underwriters Bureau, State Extension Service, Minnesota Highway Patrol, and Department of Accident Prevention and Safety. Develops fire prevention and safety leaders in rural communities with a knowledge of the hazards that can be eliminated, the personnel working in the state on this problem, and the visual aids that are available for use at rural meetings.
- A92. Psychology.** A study of human activity and behavior as influenced by the reactions which the individual makes to his environment. A study of adjustments to new situations and development of personality.
- A94. How to Study.** Training in inventorying of study habits, in budgeting of time and planning a schedule, in effective reading, in technique of concentration, in taking notes, and in preparing for examinations.
- A95. Orientation.** The first part of the term is devoted to the history, traditions, and organization of the School of Agriculture and the entire University of Minnesota. The balance of the work covers a survey of vocational opportunities on the basis of the school training.
- A97. Project Planning.** Students meet for individual consultation with an instructor who helps outline the summer project program for their home farm.

Business Courses

The object of these courses is to prepare students for office work on the farm, in the village, and in regular business offices.

The subject matter of these courses, combined with the courses in homemaking and agriculture, gives the students a training which qualifies them especially well to take positions as office assistants in farm

bureaus, cooperative creameries, and local elevators and other farm organizations.

- A80. Typewriting I.** The touch method of typewriting is taught. Following the memorization and fingering of the keyboard, drills for acceleration, concentration, and rhythm are given.
- A81. Typewriting II.** A continuation of carefully planned drills for the development of accuracy and speed. Work in tabulating, letter writing, and practice on different makes of typewriters. Typewriter care.
- A82. Typewriting III.** Business correspondence from the typist's viewpoint. Business letters and documents which help in gaining correct first impressions are studied and copied. Construction work requiring judgment in arrangement, and the exercising of initiative in solving original problems. Drills for the development of speed and accuracy are stressed.
- A83. Stenography I.** Beginning material in *The Gregg Simplified Shorthand Manual*. This includes mastery of alphabetic symbols, theory principles, phonetic spelling, vocabulary drills, and dictation of elementary material. The ease with which a student now masters the new simplified shorthand makes this course an interesting and profitable one.
- A84. Stenography II.** Continuation of theory and principles in *The Gregg Simplified Shorthand Manual*, vocabulary drills, with emphasis on dictation.
- A85. Stenography III.** Review of theory of principles, brief forms, phrases, and study of advanced theory. Much material is dictated for the development of skill in the taking and reading of shorthand notes.
- A86. Bookkeeping I.** Principles of double entry illustrated by keeping a set of books for a firm, making out the forms necessary for the various transactions, and closing the books.
- A87. Bookkeeping II.** Takes up the partnership form of business organization and continues accounting principles. An advanced set of books is kept.
- A88. Commercial Law I.** Elementary principles governing contracts, laws of negotiable instruments, stocks and bonds, and the proper use of credit.
- A89. Typewriting IV.** Course concentrates on the development of accuracy and speed in typing. Letters dictated to machine. Instructions given on the cutting of mimeograph stencils.
- A90. Stenography IV.** Dictation and transcription, high frequency word drills, and advanced phrasing short cuts. Practical business dictation and transcription of supplementary material with emphasis on mailable copies.
- A91. Stenography V.** Skill-building techniques in taking dictation and transcription with emphasis on business letters and citation problems the student will find in a business office.
- A93. Office Practice I.** Actual office methods and practice as well as apprentice work in various offices on the St. Paul Campus, and use of office appliances, such as dictating machine, mimeograph machine, and comptometer.
- A99. Commercial Law II.** A discussion of insurance, real estate, wills, deeds, mortgages, bailments, agencies, and partnerships.
- A100. Typewriting V.** Continued drills for the development of speed and accuracy are stressed. Rough-draft problems, writing minutes of

meetings, problems connected with applying for a job, and many manuscript problems.

- A101. Stenography VI.** Advanced dictation and budget preparation of transcription with instructional material that will develop faster writing and quicker transcription rate.
- A102. Office Practice II.** Attention will be given to advanced secretarial duties and traits, business reports, filing, and the use of office equipment.
- A103. Office Procedure.** What a beginner should know. Preparing for a job, working with others, using the telephone, handling callers, making appointments, and preparing reports.
- A104. Office Training I, II, III, IV.** Provision is made for each student to get actual office experience in the various School offices.

SOILS

- A1. Soils.** Minnesota soils, their formation, properties, and characteristics. Soil organisms and organic matter; the relation of water to soils and plants. Farm manures, green manures, and commercial fertilizers. Treatment of lime deficient, alkali, and peat soils. Erosion and erosion control practices. Lecture demonstrations and examination of soils with discussion of practical soil problems.

VETERINARY SCIENCE

- A1. Physiology.** The purpose of the course is to give an intelligent conception of the various organs and systems of the body; how they function and how they are managed for continued health and efficiency.
- A4. Elements of Bacteriology.** Lectures and demonstrations of the fundamental principles underlying the science of bacteriology, with special reference to organisms which cause disease. The use of vaccines, bacterines, antitoxins, immune sera.
- A7. Veterinary Studies.** The animal body in health and disease; causes, prevention, and management of disease, including common parasitic diseases.

FOOD TECHNICIAN

Work for the food technician course is given at the University Hospitals during spring quarter.

- Diet Laboratory.** (2 weeks) This is offered to gain knowledge of the diet laboratory organization through informal instruction, and information on various duties of the employees in this unit. The food technician learns to follow the modified diets, and learns the various methods for the distribution of food. Under the direction of a dietitian she learns to be an aide in special diet service, and becomes acquainted with the basic diet forms for patients on modified diets.
- Diabetic Clinic.** (2 weeks) The food technician learns to approximate weight servings of hot and cold foods appropriate for diabetics and achieves a degree of skill with gram scale weights of food. She is given experience in diabetic food preparation and service, and is taught how to check and record food intake.
- Pediatric Stations.** (2 weeks) Under the direction of a staff dietitian the food technician learns the technique of formula preparation and

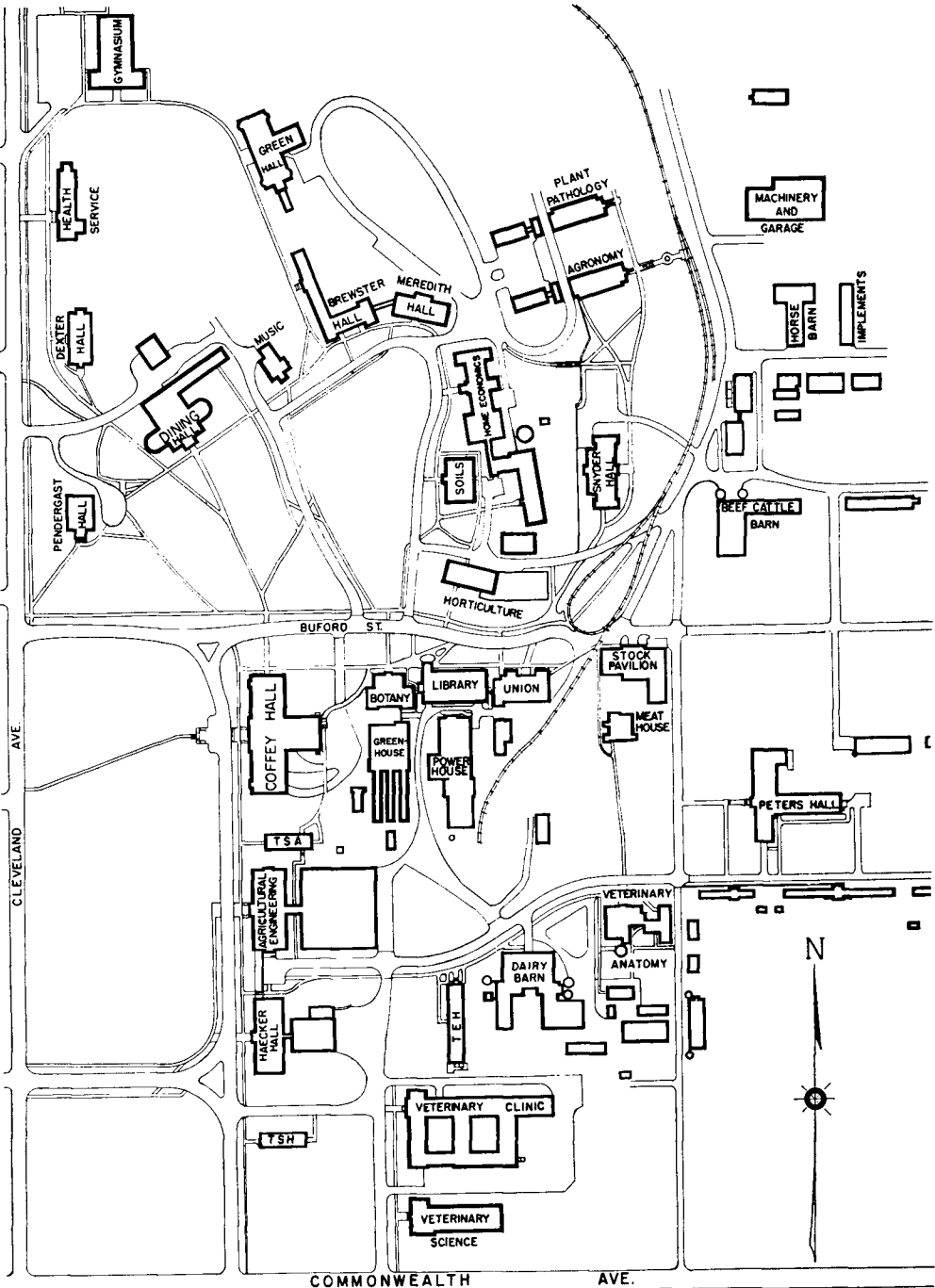
becomes acquainted with the identification system and distribution of infant formula. She gains experience in the meal service for both toddlers and older children, and observes features of training in food habits.

Medical Diet Therapy. (2 weeks) Under supervision, the food technician becomes familiar with the routines of the service of special diet trays on the medical stations, learns to arrange basic diet forms for special diets, and keeps a nutrition census on the medical floors. Under supervision she assists in the tabulation of special foods for the modified menu.

Cafeteria Service. (2 weeks) The technique of cafeteria food service and the use and care of cafeteria equipment is offered. The food technician follows procedures concerning time cards, records, and reports. She arrives at orientation through attendance at employee classes and is made aware of the importance of diplomacy and leadership and respect for authority, privilege, and responsibility.

Social Service Departments. (1 week) There is an opportunity to observe and gain acquaintanceship with techniques of interviewing. Introduction to teamwork with allied personnel in the hospital setting. The food technician may find an extension of understanding the social and emotional problems of the ill person, with emphasis on his relation to nutrition. She acquires some appreciation of personal, family, and community resources needful in meeting the individual patient's requirements.

Nutrition Office. (1 week) Here there will be an introduction to requisition forms used, summary forms, and systems of food ordering within a hospital, together with routine typing of reports, menus, food orders. She will be made aware of the importance in current price changes, and will become familiar with food costs in observing an accounting system. Selected classes in various aspects of nutrition and diet therapy are offered during the hospital training program.



COMMONWEALTH AVE.

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