The function of the committee shall be to examine existing courses and to make recommendations to the Senate as to the need and desirability for these courses; also to recommend to the Senate the action to be taken by that body to eliminate duplication of courses between departments and between colleges, and to examine all proposed new courses or changes in courses, and to recommend to the Senate the action to be taken to prevent future duplication of courses and unwise expansion of the curriculum. The basis of each recommendation made by the committee shall be explained to the Senate.

Leon M. Chamberlain
Secretary

MINUTES OF THE UNIVERSITY SENATE
March 14, 1938

The University Senate met in the Lecture Room of McVey Hall, Monday, March 14, 1938. President McVey Presided.

The minutes of February 14 were read and approved.

The following recommendations from the Colleges, reported by the Committee on Duplication of Work, were approved:

College of Arts and Sciences

1. That the Department of Art be authorized to require a comprehensive examination for graduation of all art majors who are candidates for the A. B. degree, this new requirement to begin with the graduates of June, 1939.

2. Courses to be dropped:

Chemistry 3 - Inorganic Preparations
Chemistry 10 - Quantitative Analysis for Mining Engineers
Chemistry 11 - Agricultural Analysis
Hygiene 4 - General Hygiene
Hygiene 4a-b - General Hygiene
Hygiene 8 - Hygiene in the Grades
Hygiene 104 - Principles of Physical Education
Hygiene 108 - Diseases of Occupation
Hygiene 109a-b - Public Health Seminar
Hygiene 112 - Public Health Law and Administration
Hygiene 115 - Epidemiology
Hygiene 116 - Sociological and Economic Aspects of Disease

Hygiene - Tuberculosis Control
Hygiene 125 - Supervised Field Work for Public Health Nurses
Hygiene 151a,b - Seminar in Public Health Education
Hygiene 202 - Rural and Urban Sanitation
Hygiene 222 - Tuberculosis

3. Changes in Courses and Curricula:

Chemistry - That Physics 123 (Principles of Thermodynamics) be substituted for the physics elective in the first semester of the senior year, and that Physics 117 (Theory of Heat) be substituted for Physics 123 in the second semester of the junior year - This in curriculum leading to the degree, B. S. in Industrial Chemistry. No change in total credits.

Hygiene 105a,b - Advanced Hygiene. 2 credits each, replaces Hygiene 105, same title, same credit.

Hygiene 118 - Vital Statistics. 3 credits, replaces Hygiene 113, same title, same credit.

Hygiene 122 - School and Community Health. 2 credits, replaces Hygiene 122 - School Nursing, same credit.

Hygiene 125a - County Health Practice. 2 credits, changed from Hygiene 125a, Supervised Field Work, 3 credits.

Hygiene b,c,d,e - County Health Practice, 3 credits each, changed from Hygiene 125b,c,d, Supervised Field Work, same credit.

Hygiene 200 - Epidemiology and Communicable Diseases, 3 credits, replaces Hygiene 200a,b, same title, 1.3 credits each.

Hygiene 203 - Public Health Records - 2 credits, changed from 1 credit.

Hygiene 212a - Public Health Administration. 3 credits, changed from 2 credits.

Hygiene 218a - Vital Statistics, 3 credits, and
Hygiene 218b - Vital Statistics, 2 credits, replaces Hygiene 218 same title, 2 credits.

Hygiene 220 - Mental Hygiene - 2 credits, changed from 1 credit.

Hygiene 290 - Seminar, 1 credit, changed from no credit.

Political Science 160 - American Foreign Relations. 3 credits. An examination of the chief principles and problems of American foreign policy; the part of the House, the Senate, the courts and the President in the initiation, conduct and control of foreign policy; the organization of the Department of State, the selection of personnel, the status and duties of foreign service officers. (This is a consolidation of Political Science 164, Foreign Service and International Relations with Political Science 160 - American Diplomacy: Organization and Practice.)

Physics 10 - Elementary Experimental Physics. Lectures and recitations 3 hours; lab. 4 hours a week. 5 credits. A course designed for engineering students. Some fifty experiments covering the entire field of physics will be performed by the student. The lectures will stress the basic theory of these experiments. The student is expected to write a complete report on the theory and experimental results obtained in the laboratory. A selected list of problems, based on the experiments, will be solved. This course will not be given in the summer session. No student may repeat this course. (The change is from one lecture, three recitations and one 2 hour laboratory period to the above. There is no change in the number of credits.)

Physics 113 - Fundamentals of Radio. 3 credits. Prerequisites: Physics 1b or equivalent. A course in radio primarily for high school teachers. The fundamental principles of vacuum tube characteristics, amplifiers, oscillators, transmitters and receivers; laboratory work in constructing and operating simple radio equipment of a type suitable for radio club projects.

(This recommended change leaves the credit of the course the same. This course is primarily designed for high school teachers in the summer session and it is felt that the above description more nearly expresses content of the course.)

4. New Courses:

Hygiene 130. Deficiency Diseases and Nutrition. A consideration of vitamins and hormones and their clinical and sub-clinical manifestations. 2 credits.

Hygiene 225a. County Health Practice. (For Health Officers) An internship in actual county health practice. 3 credits.

Hygiene 225b. County Health Practice. (For Health Officers) A critical analysis of one service of the Fayette County Health Department. 2 credits.

College of Agriculture

Drop:

Home Economics 32, Children's Clothing, 3 credits

Home Economics 118, Tailoring, 3 credits

Add:

Home Economics 128, Advanced Clothing Problems. Designed to suit the needs of the individual student. Some suggested problems are children's clothing, tailoring; remodeling, clothing economics; clothing for the family. Lecture 1 hour, laboratory, 4 hours; prerequisite: H. E. 47. To be given both semesters. 3 credits.

Change:

Home Economics 179, Institution Management, six credits, to Home Economics 179a-b, three credits each.

Drop:

A. I. 120, Systems of Livestock Production, 3 credits.

A. I. 201a-b, Economic Factors Involved in Meat Production, 3 credits each semester.

New Courses:

A. I. 26 - Advanced Livestock Management, 1 credit. Prerequisite: A. I. 4. An advanced course dealing with problems of the livestock farm.

A. I. 27 - Horse Production, 3 credits. This course deals with the judging, feeding, breeding and marketing of light horses, heavy horses, mules and jack stock.

A. I. 210a-b, Research in Beef Cattle, 3 credits.

A. I. 211a-b, Research in Swine Husbandry, 3 credits.

Changes:

A. I. 35, Artificial Incubation and Brooding - change from 2 credits to 3 credits. To be given as 1 hour lecture, 4 hours laboratory.

A. I. 207a-b, Investigations in Wool - Change to Research in Sheep Husbandry. No change in credit.

College of Engineering

1. New Courses:

Applied Mechanics 101. Analytical Mechanics. Continuation of Appl. Mech. 1, including the solution of engineering problems by means of differential equations. Lectures and recitations four hours a week. 4 credits.

Applied Mechanics 102. Strength of Materials. Continuation of Appl. Mech. 100. Thick plates, advanced dynamics. Lectures and recitations three hours a week. 3 credits.

Applied Mechanics 103. Advanced Analytical Mechanics. Inertia of moving parts, harmonic analysis, cams, free and forced vibrations and critical speeds. Lectures and recitations three hours a week. Prerequisite: Appl. Mech. 101 and 102. 3 credits.

Electrical Engineering 21. Principles of Electrical Circuits. A first course in Electrical Engineering covering the study of steady state and sinuscidal currents and transients in linear and non-linear circuits. Recitation three hours, supervised calculations and laboratory three hours a week. Prerequisite or Concurrent: Physics 10 or 1b; Math. 17 and 18. 4 credits.

Electrical Engineering 110. Electrical Laboratory. An experimental study of direct current machines. Two three-hour laboratory periods a week. Prerequisite or Concurrent: Elec. Eng. 115. 2 credits

Electrical Engineering 115. Direct Current Machinery. The theoretical principles and operation of direct current machines, including generators, motors, lifting magnets, balances, etc. Recitation three hours, supervised calculations and laboratory three hours a week. Prerequisites: Phys. 2b; Elec. Eng. 21; Math. 20b. 4 credits.

Electrical Engineering 116. Alternating Current Circuits and Machinery. A study of polyphase circuits and of the simple forms of alternating current machines. Recitations three hours, supervised calculations and laboratory three hours a week. Prerequisite: Elec. Eng. 115 4 credits.

Electrical Engineering 137. Electric Power Transmission and Distribution. A study of the materials and equipment used and the problems involved in the design, building and operation of transmission lines and distribution systems. Recitations three hours a week. Prerequisite: Elec. Eng. 116. 3 credits.

Engineering Administration 100a-b. Engineering Valuations and Appraisals. A study of the methods, procedures and principles involved in engineering analyses as applied to varluation and appraisal; specific problems and assignments to cover the various branches of engineering. Lectures and

recitations three hours a week. 3 credits each semester.

Mechanical Engineering 122a. Mechanical Engineering Seminar. Studies of current engineering literature and problems, presentation of papers and discussion. All presentation to be electrically recorded and reproduced and at least one record of each student to be placed on file. Two hours a week. Prerequisite: Junior Standing. 1 credit.

Mechanical Engineering 122b. Mechanical Engineering Seminar. Continuation of Mechanical Engineering 122a. Two hours a week. Prerequisite: Senior Standing. 1 credit.

2. Changes in Courses:

Drop: Engineering Mechanics 5 (Slide Rule). 1 credit.
Substitute: Applied Mechanics 5. Slide Rule. Same hours, same credit.

Drop: Engineering Mechanics 11 (Analytical Mechanics) 4 credits.
Substitute: Applied Mechanics 1. Analytical Mechanics. Pure mechanics and its application to engineering problems in statics and kinetics. Lectures and recitations four hours a week. Prerequisite: Physics 2a; Prerequisite or Concurrent: Math. 20b. 4 credits.

Drop: Engineering Mechanics 12 (Kinematics) 2 credits.
Substitute: Applied Mechanics 2. Mechanisms. Movement of machine parts, crank and link motions, cams, gears, straight line quick return motions. Lectures and recitations two hours a week. Prerequisites: Physics 10 or 1a; Math. 17 and 18. 2 credits.

Drop: Engineering Mechanics 13 (Mechanics of Materials). 4 credits
Substitute: Applied Mechanics 100. Strength of Materials. Physical Properties of materials, stresses, think cylinders, bending elastic curves, beams, columns, torsion, continuous beams, springs, reinforced concrete. Lectures and recitations four hours a week. Prerequisite: Applied Mechanics 1. 4 credits.

Drop: Engineering Drawing 12b (Kinematic Drawing) 2 credits
Substitute: Engineering Drawing 12. Graphical Commutations. Graphic solution of problems in kinematic, nomographs and alignment charts, use of planimeter and mechanical integrator. Lectures two hours, drafting room five hours a week. Prerequisite or Concurrent: Physics 2a; Appl. Mech. 2. 2.3 credits.

Drop: Engineering Mechanics 18 (Machine Design). 3 credits.
Substitute: Mechanical Engineering 100a. Machine Design. Design of machine and structural elements. Lecture one hour, drawing room six hours a week. Prerequisites: Eng. Draw. 18; Appl. Mech. 1; Prerequisite or Concurrent: Appl. Mech. 100. 2.3 credits.

Drop: Engineering Mechanics 19 (Machine Design) 3 credits.
Substitute: Mechanical Engineering 100b. Machine Design. Continuation of Mech. Eng. 100a. Individual work on the design and construction of complete machines or structures. Lecture one hour, drawing room nine hours a week. 3.3 credits.

Electrical Engineering 11. Change the title from Electrical Circuits to Electrical Laboratory. One three-hour period a week. Prerequisites: Physics 10 or 1b; Math. 17 and 18. 1 credit.

Drop: Electrical Engineering 151. (Electrical Engineering Conferences) 1 credit.
Substitute: Electrical Engineering 151a and 151b. Seminar. Round table discussion of modern trends and practices in electrical engineering. Basis of discussion is current literature on electrical subjects. Recitation one hour a week each. Prerequisite: Senior Classification. 0.5 credit each.

Drop: Electrical Engineering 121 (Direct Current Design) 2 credits
Electrical Engineering 122 (Transformer Design) 1 credit
Substitute: Electrical Engineering 124. Electrical Design. A study of several of the more common types of both direct current and alternating current machines such as generators, motors and transformers, culminating in the design calculations for one or more complete machines. Nine hours a week. Prerequisite: Elec. Eng. 106 or Elec. Eng. 116. 3 credits.

Drop: Mechanical Engineering 101a (Mechanical Engineering Design) 3.3 crs.
Mechanical Engineering 101b (Mechanical Engineering Design) 5 crs.
Substitute: Mechanical Engineering 101. Mechanical Engineering Design. Individual work in the selection of equipment and in the laying out and specifying of power plants, heating, ventilating, air conditioning, plumbing, electric, industrial and elevator equipment for buildings. Drawing room nine hours a week. Prerequisites: Mech. Eng. 104; Appl. Mech. 100. Prerequisite or Concurrent: Mech. Eng. 105, 106b, 109. 3 credits.

Drop: Mechanical Engineering 112a (Mechanical Laboratory) 2 credits
Mechanical Engineering 112b (Mechanical Laboratory) 2 credits
Substitute: Mechanical Engineering 112. Mechanical Laboratory. Practice in the operation, use, calibration and care of mechanical laboratory and industrial test and research instruments and apparatus, followed by a study of the method used for the determination of certain fundamental coefficients and constants; also a study of the records and results from operating and test instruments in actual commercial use. Lecture one hour, laboratory three hours a week. Prerequisite or Concurrent: Mech. Eng. 104. 2 credits

Drop: Mechanical Engineering 113a (Mechanical Laboratory) 3 credits
Mechanical Engineering 113b (Mechanical Laboratory) 3 credits

Substitute: Mechanical Engineering 113. Mechanical Laboratory. Performance tests on heating, ventilating and power plant equipment. Lecture one hour, Laboratory three hours a week. Prerequisite: Mech. Eng. 112; Prerequisite or Concurrent: Mech. Eng. 105, 106a. 2 credits.

Drop: Mechanical Engineering 120a (Independent Problems) 4 credits
Mechanical Engineering 120b (Independent Problems) 16 credits
Substitute: Mechanical Engineering 120. Independent Problems. This comprises the complete design and possibly the construction of a machine or an apparatus, or the complete design and specifications for a power plant, heating, ventilating and air conditioning system or industrial shop, including the management and direction of under class assistants who will be assigned for such work when and as required; together with the estimating of the costs and time required to perform the work. Lectures and laboratory fourteen hours a week. 5 credits.

Drop: Engineering Mechanics 15a (Machine Design). Lecture one hour, drawing room five hours a week. 2 credits.
Substitute: Mechanical Engineering 121. Machine Design. Same hours, same credits.

Drop: Engineering Drawing 12a (Engineering Drawing) 2 credits
Engineering Mechanics 15b (Machine Design) 2 credits
Mechanical Engineering 102 (Elements of Reciprocating Engines) 2 credits.
Mechanical Engineering 114 (Mechanical Laboratory) 2 credits
Mechanical Engineering 117 (Advanced Heating, Ventilating and Air Conditioning). 3 credits.
Mechanical Engineering 118 (Advanced Internal Combustion Engines) 3 credits
Mechanical Engineering 119 (Advanced Refrigeration) 2 credits
Mining Engineering 124 (Engineering Valuations) 2 credits

Changes in Credit:

Electrical Engineering 141. Analytical Electrical Engineering. Change from two hours recitation a week and 2 credits to three hours recitation a week and 3 credits.

Engineering Drawing 18. Engineering Drawing. Change from twelve hours drawing room and 4 credits to six hours drawing room and 2 credits.

Mechanical Engineering 109. Refrigeration. Change from two hours lectures and recitations and 2 credits to three hours lectures and recitations and 3 credits.

Sanitary Engineering 24. Sanitary Engineering for Sanitary Inspectors. Change from 3 credits to 5 credits. Summer School.

Electrical Engineering 152a. Independent Problems. 4 credits
Electrical Engineering 152b. Independent Problems. 16 credits.
Change to Electrical Engineering 152a - Independent Problems. 2 credits
Electrical Engineering 152b - Independent Problems. 3 credits
Electrical Engineering 152c - Independent Problems. 4 credits

College of Education

1. That Education 112, Determining Teaching Content in Distributive Occupations; Education 116, Problems of the Coordinator in Distributive Occupations; and Education 128, Technique of Teaching Distributive Occupations, be raised from two to three credits each.

The above courses were authorized on a two-credit basis because they were originally offered by extension and the two-credit course was better adapted to the extension work. In the future, when offered by extension, they will carry only two credits each and will be listed as Education R112, R116, and R128.

2. That Education 104, Principles of Education, be permanently discontinued.

3. That the following new course be approved:

Education 104 - Foundations of Business Education in the High School. This course is designed to give to the student preparing to teach commerce in the high school an understanding of the origin, the status, and the objectives of business education in the secondary school. Prerequisite: Junior Standing. 3 credits.

College of Commerce

1. Cancel Commerce 150, Central European Economic Policy, which was authorized at the last Senate meeting. This is necessary because Dr. Morgenstern cannot meet the class a sufficient number of times to offer the work on a credit basis.

2. Provide for Commerce 150, Market Analysis. Training in the application of scientific method to research in fields of marketing. A major marketing investigation will be conducted by the class. Prerequisite: Com. 10 and a course in statistics. 3 credits.

In addition to the above courses, the Committee reported to the Senate a recommendation from the College of Arts and Sciences for approval of the following course: Political Science 215, American Judicial Administration. 3 credits. (This is a consolidation of Political Science 210, The Supreme Court and Politics, with Political Science 215, The Administration of Justice)

The Committee reported no duplication in this course. However, Dean Evans pointed out that the course contained certain content that might in the future be included in a course in the Law College. He stated that he offered no objection to the approval of Political Science 215, but asked that the approval of the course not be interpreted as preventing the Law College from offering a course in the administration of justice at some future time.

Commerce 151 - Economics of Consumption, was recommended by the College of Commerce, with the explanation that it duplicated, perhaps as much as 95 per cent, the content of Home Economics 125, Consumer Problems. The Committee on Duplication reported this course as duplicating Home Economics 125.

The Senate voted to withhold approval on both Commerce 151, Economics of Consumption and Political Science 215, American Judicial Administration, and to refer both of these courses to the newly created Curriculum Committee.

The Senate heard reports on two educational meetings. Dr. O. T. Koppius, of the Physics Department, reported on the organization and work of the American Association for the Advancement of Science. Dr. M. Scherago, of the Bacteriology Department, reviewed certain of the more important papers read in the meeting of the Society of American Bacteriologists. The Senate showed much interest in both of these reports. The report of Dr. W. L. Roberts on the meeting of the Association of American Law Schools was postponed until the next meeting of the Senate.

President McVey suggested that there might be included in the program of the next meeting of the Senate a report of the recent meeting at Atlantic City of the American Association of School Administrators.

Dean Boyd presented the following recommendation from the Rules Committee:

> "The Committee on Rules recommends that the units in General Science allowed for entrance to the University be changed from 1/2 to 1 unit - to 1/2 to 2 units."

After considerable discussion of the recommendation, the most of which seemed in opposition to its approval, the motion was referred back to the Rules Committee with a request that it report the question to the Senate at a subsequent meeting with a fuller presentation of the place and character of general science work in the high schools, and of the circumstances bringing about the request for the approval of the second unit.

Dr. Ernest G. Trimble was elected chairman of the Curriculum Committee which was created by the Senate at its meeting of February 14. The Senate also voted to discharge its Committee on Duplication.

President McVey announced the convocation to be held Tuesday, March 15, at the third hour. The speaker at this convocation is Dr. Oscar Morgenstern and his subject, "Austria in Middle Europe".

Leo M. Chamberlain
Secretary