

THE UNIVERSITY OF NORTH CAROLINA RECORD

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FACULTY COMMITTEE ON EXTENSION

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The Bureau of Extension of the University of North Carolina

The University of North Carolina through its Bureau of Extension offers to the people of the State:

- I. GENERAL INFORMATION:
Concerning books, readings, essays, study outlines, and subjects of general interest. Literature will be loaned from the Library upon the payment of transportation charges each way.
 - II. INSTRUCTION BY LECTURES:
Lectures of a popular or technical nature and addresses for commencement or other special occasions will be furnished any community which will pay the traveling expenses of the lecturer.
 - III. CORRESPONDENCE COURSES:
For teachers in Arithmetic, Economics, Education, English, German, Latin, North Carolina History, Rural Economics, Rural Education, Solid Geometry, and United States History.
 - IV. GUIDANCE IN DEBATE AND DECLAMATION:
Through the High School Debating Union, special bulletins and handbooks, and material loaned from the Library.
 - V. COUNTY ECONOMIC AND SOCIAL SURVEYS:
For use by counties in their effort to improve their economic and social condition.
 - VI. MUNICIPAL AND LEGISLATIVE REFERENCE AIDS:
For use in studying and drafting municipal and State legislation.
 - VII. EDUCATIONAL INFORMATION AND ASSISTANCE:
For teachers, principals, superintendents, school communities and boards. The School of Education acts as a clearing house for information concerning all phases of educational work and conducts a teacher's bureau as an aid to communities and schools in securing efficient teachers.
- For full information, address

THE BUREAU OF EXTENSION,
Chapel Hill, N. C.

Extension Lectures for North Carolina Communities

Importance and Object

Every State University's rightful work is two-fold. As a part of a State's comprehensive educational system the University should set standards and train men within its own walls and it should carry its knowledge out into the State and apply it in creative helpfulness. "No call for guidance in its development should come out of the State which is not met with immediate answer by its State University or its group of higher educational agencies." Whether the call be for aid in the perfecting of its lower schools, or for the development of its economic resources, or for the improvement of its public health, or for any other purpose which affects the life of the whole people, the State has the undisputed right to call upon its University for immediate service.

In recognition of this opportunity, the University of North Carolina, in 1913-14, organized a lecture bureau for the special purpose of aiding schools and other organizations in obtaining a broader knowledge of their daily activities and of interesting them in those things which look to the upbuilding of the State and the cultivation of the finer things of the spirit.

The response on the part of the State was immediate. Invitations were received for a total of 260 speakers and audiences in every part of the State were reached. The work of the bureau was so successful in every respect that additional speakers have been secured for the present year and the list of subjects has been revised and considerably extended. The subjects for the present year again fall into three groups, their nature being indicated by the letters A, B, and C standing before them as follows:

Lectures marked A are popular and of general interest.

Lectures marked B are specific or technical for study clubs, institutes, farmers' meetings, etc.

Lectures marked C are lectures or addresses for special meetings, such as commencement, patriotic, and dedicatory occasions, Memorial Day exercises, conventions, etc.

Lectures suitable for both general and special occasions are marked with two letters. In some instances the titles of commencement addresses are not given.

Organization for Lectures

In continuation of the policy of last year, these lectures will be furnished wherever there is a demand for them, whatever the size of the community. Commercial Clubs, Teachers' Institutes, Women's Clubs, Y. M. C. A. centers, Farmers' Conventions and Meetings, School Boards, Study Clubs, and other organizations can arrange for lectures by applying direct to the Bureau.

Application and Terms

Applications for lectures should be addressed to the Bureau of Extension, Chapel Hill, N. C. Since the lecturers are members of the faculty and are not free to leave the University at all times, the application should contain a first and second choice of lecturer, subject and date.

The traveling and incidental expenses of the lecturer are borne by the organization for which the lecture is made. In the case of illustrated lectures, there may be an additional expense for the operator of the lantern if an operator is not supplied locally.

In order that the best results may be secured from these lectures, it is suggested that a series of three at least be provided for whenever possible and that a regular schedule for them at intervals of a month or some other convenient period of time be arranged.

It is also suggested that if a single organization or community is unable to meet the entire expense of such a series, that it combine with a neighboring organization or community and thereby reduce the expense, as the lecturer could speak at two or possibly three neighboring places on the same trip. This can be done provided a central committee arranges all the details as to schedules and sees that the speaker can fill the dates without too great difficulty.

Lecturers and Subjects

CHARLES WESLEY BAIN, A. M., LL. D., *Professor of Greek.*

- B. 1. Aeschylus.
- B. 2. Sophocles.
- B. 3. Euripides.

WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*

- A. or B. 1. History of Architecture (one or more lectures).
- A. or B. 2. History of Sculpture (one or more lectures).
- B. 1. What Is Art?
- B. 2. Architecture and Civilization.
- C. 1. Our Education vs. Culture.

JAMES MANNING BOOKER, Ph. D., *Associate Professor of English.*

- A. 1. The Fiction-Making Mind (illustrative readings).
- A. 2. The Irish Plays (illustrative readings).
- A. 3. The Dramatic Monologue (illustrations from Tennyson and Browning).

EUGENE CUNNINGHAM BRANSON, A. M., *Professor of Rural Economics and Sociology.*

- A. 1. Robert E. Lee, Gentleman.
- A. 2. Know-Your-Home-State Clubs.
- A. 3. Come, Let Us Live with Our Children.
- B. 1. Home-County Study-Clubs.
- B. 2. Community Nest-Eggs.

JAMES BELL BULLITT, A. M., M. D., *Professor of Pathology and Histology.*

- A. or B. 1. School Sanitation and Medical Inspection.
- A. or B. 2. Oral Hygiene.
- A. or B. 3. Bubonic Plague: Its Menace to this State.

HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*

- A. 1. The New Education.
- A. 2. The Making of the Individual.
- A. 3. Heredity, Environment and Education.
- B. 1. The Growth of Educational Standards.
- B. 2. The School Survey and What It Means.
- B. 3. The Backward Defective Pupil.
- C. Commencement Addresses.

COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*

- A. 1. Where the Wind Does the Work. (An account of the sand-reefs along the North Carolina Coast. Illustrated).
- A. 2. Lessons from the Landes of Gascony. (A region of swamp lands and dunes reclaimed by drainage and tree-planting. Illustrated).
- A. 3. The Work of Snow and Ice. (An account of the glaciers of the Alps and of Alaska. Illustrated).
- A. 4. Across the Alps. (Illustrated).
- B. 1. Geology in Relation to Soils, Drainage, and Crops.
- B. 2. Geology and Water Supply.
- C. 1. Education for Service.

WILLIAM CHAMBERS COKER, Ph. D., *Professor of Botany.*

- A. 1. A Visit to Luther Burbank. (A description of Mr. Burbank's fruit and flower breeding establishment at Sante Rosa, California. Illustrated).
- A. 2. Across Porto Rico. (A traveler's impressions of this beautiful tropical country. Illustrated).
- B. 1. Bacteriology for the Housewife. (Designed to give an idea of the structure and activities of bacteria and their relation to housekeeping. Illustrated).
- B. 2. Plant Breeding and Its Relation to the Improvement of Farm Crops. (Illustrated by specimens).

PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*

- A. 1. The Electrical Age. (Illustrated).
- B. 1. Electric Light and Power in the Home. (Illustrated).
- B. 2. Electricity on the Farm. (Illustrated).

EDWARD KIDDER GRAHAM, A. M., LL. D., D. C. L., *President.*

- A. 1. The Progressive. (A popular lecture on community spirit and development).
- A. 2. The Enjoyment of Books. (A popular lecture on reading).
- C. 1. Ideals and Tasks.

EDWIN GREENLAW, Ph. D., *Professor of English.*

- A. or B. 1-4. Followers of the Glean. (Being four studies in Idealism in Literature).
 - I. Sir Gawayne: The Chivalric Ideal.
 - II. Sir Galahad: A study in Mysticism.
 - III. Sir Artegal: A study in Political Idealism.
 - IV. The Scholar: A Phase of Modern Knighthood.
- B. 5. Addresses on Programs of Study Clubs in English.
- B. 6. The Ideal of Tragedy in Shakespere.

JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*

- A. 1. Andrew Jackson, a Product of Democracy.
- A. 2. The Real Abraham Lincoln.
- B. 1. The Locality as a Field for Historical Investigation.
- C. or B. The Question of Constitutional Amendment.

ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*

- A. or C. 1. The South's Awakening.
- B. 1. The Teaching of Geometry.
- B. 2. The Foundations of Geometry.

CHARLES HOLMES HERTY, Ph. D., *Smith Professor of General and Industrial Chemistry.*

- A. or B. 1. Chemistry in the Service of Cotton.
- A. or B. 2. Aiding Nature in our Pine Forests.
- B. 3. Home Illumination.

THOMAS FELIX HICKERSON, A. M., *Associate Professor of Civil Engineering.*

- B. 1. Problems of Highway Location, Construction, and Maintenance.
- B. 2. Engineering for Land Drainage.
- B. 3. Private Water Systems for the Home and Farm.

GEORGE HOWE, Ph. D., *Professor of Latin.*

- A. 1. The Poetry of the Augustan Age.
- B. 1. The Teaching of Latin in the High Schools.

ZEBULON VANCE JUDD, A. M., *Professor of Rural Education.*

- A. 1. A New Notion of Culture.
- A. 2. New Ideals in Education.
- A. 3. The Evolution of the Educational Ideal.
- A. 4. What's the Matter with the Country Schools?
- A. 5. Consolidation and Special Taxation as Means to Better Schools.
- A. 6. How to Organize and Run (a) A School Betterment Association; (b) A School Farm; (c) Other Forms of School and Community Activity.
- C. Commencement Addresses.

EDWARD VERNON HOWELL, A. B., Ph. G., *Professor of Pharmacy.*

- A. or B. 1. Narcotic and Other Injurious Drugs. What the Public Should Know about Them.

GEORGE MCFARLAND MCKIE, A. M., *Associate Professor of Public Speaking.*

- A. 1. Recitals from Kipling.

- A. 2. Recitals from Tennyson and Browning.
- A. 3. Recitals from Modern American Humorists.
- B. 1. The Essentials of Public Speech.

WILLIAM DEBERNIERE MACNIDER, M. D., *Professor of Pharmacology.*

- A. or B. 1. The Origin and Prevention of Epidemics of Typhoid Fever.
- B. 1. The Value of Diuretic Substances in Different Types of Nephritis. (For county medical meetings).
- B. 2. The Effect of Different Anesthetics on the Pathology of the Kidney in Acute Nephritis.
- B. 3. The Effect of Chloroform and Ether on the Heart.

MARCUS CICERO STEPHENS NOBLE, *Professor of Pedagogy.*

- A. 1. Scotland and Its Schools.
- A. 2. Community Progress.
- A. 3. Public Schools and Public Taxes.
- A. 4. The Influence of Geography on North Carolina History.
- B. 1. Methods of Teaching in the Public Schools.
- B. 2. School Management, the Teacher, the Pupil, and the Parent.
- C. Commencement and Educational Rally Addresses.

ANDREW HENRY PATTERSON, A. M., *Professor of Physics.*

- A. 1. The Story of the Stars. (Illustrated with Lantern Slides).
- A. 2. The Gyroscope and Its Applications. (With experiments).
- A. 3. Sound Waves and Their Uses. (With experiments).
- B. 1. The Story of Radium. (With demonstrations).
- B. 2. The Teaching of First Year Physics. (With experiments).
- C. Commencement Addresses.

JOSEPH HYDE PRATT, Ph. D., *Professor of Economic Geology.*

- A. 1. Natural Resources of North Carolina.
- A. 2. The Forests of North Carolina.
- A. 3. Swamp Lands and their Reclamation.
- A. 4. Road Problems in North Carolina.

EDGAR RALPH RANKIN, A. M., *Secretary of the High School Debating Union.*

- B. 1. How to Organize and Conduct High School Literary and Debating Societies.

CHARLES LEE RAPER, Ph. D., *Professor of Economics.*

- A. or C. 1. Taxation by the State.
- A. or C. 2. Taxation by the Municipality.
- A. or C. 3. Taxation and the Proposed Amendments to the Constitution.
- A. or C. 4. Co-operative Marketing of Farm Products.
- A. or C. 5. Credits Institutions for the Farmers.

- A. or C. 6. The Effects of the European War on the People of the United States: (a) Their Money and Credit; (b) Their Wheat and Other Food Stuffs; (c) Their Cotton; (d) Their Cotton Goods and Other Textiles; (e) Their Labor and Wages; (f) Their Costs and Burden of Living.

C. Commencement Addresses.

MARVIN HENDRIX STACY, A. M., *Professor of Civil Engineering.*

A. or C. 1. Some High School Problems.

B. 1. The Farmers' Part in Highway Improvement.

C. Commencement Addresses.

WALTER DALLAM TOY, A. M., *Professor of the Germanic Languages and Literature.*

A. or B. 1. The German Universities.

A. or B. 2. Martin Luther.

A. or B. 3. Bismarck (illustrated).

FRANCIS PRESTON VENABLE, Ph. D., LL. D., *Professor of Chemistry.*

A. 1. Some Lessons Taught by a Swiss City.

A. 2. Radium.

HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of European History.*

A. 1. The Underlying Causes of the European War.

NATHAN WILSON WALKER, A. B., *Professor of Secondary Education.*

A. or C. 1. The School and the Community.

A. or C. 2. Education and Democracy.

A. or C. 3. Our Country High Schools and Their Work. (Illustrated).

A. or C. 4. The Newer Demands Upon the School and How They Are to Be Met.

A. or C. 5. The State's Educational Agencies.

L. A. WILLIAMS, Ph. D., *Professor of School Administration.*

A. 1. Facts and Figures in Education.

A. 2. The School and the Community.

A. 3. Work, Play, Drudgery.

A. 4. James Whitcomb Riley, the Child's Poet.

B. 1. Those Little Animals We Teach.

B. 2. The Farm-Life School—Its Place in the Community.

C. Commencement Addresses.

LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration.*

A. or B. 1. The Public Library in Community Building.

B. 2. Books for the Farm and How to Get Them.

B. 3. The Library's Place in the High School Community.

The University of North Carolina Division of Correspondence Study

Announcement

The University of North Carolina offers herewith a series of extra-mural courses by correspondence. Courses so marked can be counted toward credit for a degree under the restrictions indicated later.

Purpose

These courses are a continuation of the extension policy of the University. The response to the correspondence courses offered last year has necessitated the enlargement of the scope of such work for this year. It is the ultimate purpose of these courses to make University instruction possible for every resident of North Carolina.

An attempt will be made to offer study courses for the teacher, the tradesman, the artisan, the general reader, the student along any line covered by the regular courses at the University. The extent of such courses will be determined by the calls received. The courses here presented are only a beginning.

Time Required

Except as otherwise indicated a full course will mean thirty (30) weekly lessons. Courses may be begun at any time between October and March. No assignments will be made and no lesson plans sent out from June to October except by special arrangement and by payment of an extra fee. If a course is begun too late in the college year to be completed before the close of the year, it may be completed the following term.

The time required by the student will vary with the course and with the aptitude of the student, no definite requirement is made by the University. What the student gets from the course depends upon his or her individual efforts.

Credit and Non-Credit

Certain of the courses as indicated will be allowed to count toward the A. B. degree under the restrictions as later stated. All other courses are considered non-credit courses and cannot be counted toward a degree. For further information as to the credit courses consult that section so headed in this bulletin.

Credit Courses

Certain courses indicated in this bulletin may be credited to-

ward the A. B. degree. One-fourth of the number of courses required for this degree may be taken through correspondence but not over one-half the work for these courses may be done in any one University year. A candidate must meet college entrance requirements before being allowed to take such work. A candidate wishing to pursue more advanced courses must present satisfactory credentials as to his fitness to pursue such courses in addition to credentials for college entrance. For every credit course a fee of \$5 in addition to the registration fee of \$2 is required, e. g., one course \$7, two courses \$12, three courses \$17, etc. Final examinations in all courses must be taken by candidates either at the University or under conditions approved by the University.

Certificates

When a course has been satisfactorily completed, whether credit or non-credit, a certificate to that effect will be issued and sent to the student.

Fees

A fee of two dollars (\$2) will be charged for registration. In addition there will be the instruction fee of five dollars (\$5) for credit courses or of three dollars (\$3) for non-credit courses. Any other fees will be indicated in the announcement of the course in this bulletin. These fees are necessary to cover the cost of postage and of the clerical work. The instructors will be the regular members of the University faculty whose only reward will be the personal knowledge that they are serving the needs of the people in the state. They are freely and voluntarily giving their services.

No fees or parts of fees can be remitted after a course is once begun. Dropping a course before it is finished will necessitate a new registration fee as well as the usual instruction fees before another course can be pursued. All work for credit when once begun must be continued year after year consecutively or a new registration fee will be required in addition to the usual instruction fees.

Method of Procedure

1. Write to Mr. E. R. Rankin, Assistant Director of the Bureau of Extension, Chapel Hill, N. C., state your probable choice of courses, include the registration fee of two dollars (\$2), and ask for an enrollment card in the Division of Correspondence Study of the Bureau of Extension.

2. Upon the receipt of this card and the accompanying folders fill out the card as fully as possible, state the course or courses you wish to pursue, determine the cost for instruction, extra fees, etc., and make out a check, postal money order or express money order

to Bureau of Extension, University of North Carolina, and send card and money to Mr. E. R. Rankin, Chapel Hill, N. C.

3. Just as soon as the office at the University receives your money and your enrollment card, lessons 1 and 2 will be sent to you. Prepare lesson 1 and return to Mr. Rankin within a week. While lesson 1 is being corrected, work on lesson 2. Lesson 3 will be sent to you, within one week from receipt of lesson 1, accompanied by the corrected lesson 1. Send lesson 2 upon receipt of lesson 3, and so on for the entire course, preparing one lesson while the previous one is being corrected.

4. Address all correspondence, prepared lessons, questions about lessons, books, etc., to Mr. E. R. Rankin, Chapel Hill, N. C.

Officers of Administration and Faculty

- EDWARD KIDDER GRAHAM, A. M., LL. D., D. C. L., *President of the University.*
- WALTER DALLAM TOY, A. M., *Professor of the Germanic Languages and Literature.*
- COLLIER COBB, A. M., *Professor of Geology and Mineralogy.*
- MARCUS CICERO STEVENS NOBLE, *Dean of the School of Education, Professor of Pedagogy.*
- GEORGE HOWE, Ph. D., *Professor of the Latin Language and Literature.*
- CHARLES LEE RAPER, Ph. D., *Professor of Economics.*
- ARCHIBALD HENDERSON, Ph. D., *Professor of Pure Mathematics.*
- JOSEPH GREGOIRE DEROULHAC HAMILTON, Ph. D., *Alumni Professor of History.*
- HENRY MCGILBERT WAGSTAFF, Ph. D., *Professor of History.*
- CHARLES WESLEY BAIN, A. M., LL. D., *Professor of Greek.*
- HARRY WOODBURN CHASE, Ph. D., *Professor of the Philosophy of Education.*
- LOUIS ROUND WILSON, Ph. D., *Professor of Library Administration, Director of the Bureau of Extension.*
- PARKER HAYWARD DAGGETT, S. B., *Professor of Electrical Engineering.*
- EDWIN GREENLAW, Ph. D., *Professor of English.*
- LESTER ALONZO WILLIAMS, Pd. D., *Professor of School Administration.*
- ZEBULON VANCE JUDD, A. M., *Professor of Rural Education.*
- EUGENE CUNNINGHAM BRANSON, A. M., *Professor of Rural Economics and Sociology.*
- WILLIAM STANLY BERNARD, A. M., *Associate Professor of Greek.*
- ROBERT LANE JAMES, C. E., *Assistant Professor of Drawing.*
- GEORGE KENNETH GRANT HENRY, Ph. D., *Assistant Professor of Latin.*
- EDGAR RALPH RANKIN, A. M., *Assistant Director of the Bureau of Extension.*

Courses of Instruction

Drawing

- c 1. This course is designed to give the student who has never handled mathematical drawing instruments a thorough course of instruction in their use, and an understanding of the elementary principles of mechanical drawing. Instruction in free hand lettering is given in connection with this course. Text-book. *Credit course, two hours.* Assistant Professor JAMES. Fee, \$5. Drawing materials extra.

Economics

- c 1. General Economics. A general course in elementary economics. It will treat of the uses of wealth for living, development, and government. It will also treat of the making of wealth by means of agriculture, manufacturing, commerce, and transportation. *Half year, non-credit.* Professor RAPER. Fee, \$1.50.
- c 2. Applied Rural Economics and Sociology. Confined to a study of the student's own home county, as outlined in the University Home-County Club-Study Syllabus. The subjects covered are:—Historical Background, Natural Resources, Population Studies, Wealth and Taxation, Crops and Annual Products, Organization and Co-operation, Farm Credits and Markets, Improved Public Highways, Roadway Facilities, Public Schools and Higher Education, Public Health and Sanitation, Church and Sunday School Problems, Country-Home Studies, Amusements and Recreations. *Full year course, non-credit.* Professor BRANSON. Fee, \$3.

Education

- c 1. A brief study of the Principles of Teaching, the preparation of model lessons based on principles studied. *Non-credit.* Professor NOBLE. Fee, \$3.
- c 2. High School Organization. A study of the history, function, organization, management, programme of studies, and internal equipment of the high school. Emphasis will be laid upon the rural public high school. Text-book, parallel readings, reports. Advanced course. *Credit course, one and one-half hours.* Professor WILLIAMS. Fee, \$5.
- c 3. School Hygiene. A study of school grounds, buildings and

- equipment. The features of construction, decoration, sanitation and location will be considered. School-room diseases, medical inspection, care of exceptional children will be emphasized. *Non-credit*. Professor WILLIAMS. Fee, \$3.
- c 4. The Psychology of Education. A study of the fundamental psychological principles underlying educational theory and practice. Text-book. *Non-credit*. Professor CHASE. Fee, \$3.
- c 5. Rural Education. The social and industrial character of present-day country life and the district, village and town school as its chief institution will be the concerns of this course. The chief problems of the home, the farm, and the associational life of the community will be discussed. The country school evolved in endeavor to offer solutions to these problems will be defined. The course will be conducted mainly with a view to aiding teachers now in service. Text-book and supplementary readings. *Credit course, three hours*. Professor JUDD. Fee, \$5.
- c 6. Rural Educational Practice. A survey of the work of the better district, village and town schools of the United States will be made. Special features will be noted and an attempt made to evaluate them in terms of the environs of and demands upon one's own school. The teacher's relation to the larger problems of the school's life will be considered: How to secure adequate revenue, suitable buildings, grounds, and equipment; how to organize the community and place its resources at the command of the school; how to reorganize the school and make it responsive to the recreational and social as well as the industrial demands of the community; how to lengthen the school term. The daily problems arising in and about the school will also receive attention: How to organize the school into grades and classes and to allot the work among the teachers; how to work out a daily teaching schedule, involving the combination, alternation, and correlation of subjects; how to keep the school records and make reports to the county superintendent; how to handle stubborn cases of discipline among the pupils and patrons; how to solve problems of sanitation; how to secure the enrollment and daily attendance of the pupils; how to prevent retardation and elimination and to hold the pupils through the school course; how to use the recess period; how to secure the cooperation of the pupils and patrons; how to develop and preserve the interest of the pupils in the daily study and recitations. Text books and other readings and reports. *Credit course, two hours*. Professor JUDD. Fee, \$5.

Engineering

- c 1. A course intended to supply the fundamental knowledge necessary for a thorough understanding of power-plant machinery. It may be taken to advantage by engineers and firemen who have had some practical experience but whose advancement is handicapped by a lack of knowledge of the underlying theory.

The course deals with the fundamental principles and laws governing the generation, transmission and transformation of heat, and their application to practical problems. A good working knowledge of arithmetic and the ability to handle problems involving simple formulas is required. *Non-credit*. Professor DAGGETT. Fees, \$3 plus Text-book \$2.

- c 2. Steam Boilers. This course is intended for students and others interested in the installation, operation or management of boiler-plants. It deals mainly with boiler types, their construction, operation and maintenance. Especial attention is devoted to the question of efficient combustion and proper methods of firing. *Non-credit*. Professor DAGGETT. Fees, \$3 plus Text-book \$2.50.

- c 3. Electricity and Magnetism. This course is designed for those students who have had practical experience with electrical apparatus, but who lack the necessary knowledge of fundamental principles so essential for advancement in their work. Most of the topics considered are developed first experimentally, then the theory is explained, after which the practical applications are discussed briefly.

The necessary apparatus for the experiments is lent by the Extension Bureau to students within the State on payment of a small fee, but students living outside the State must provide their own apparatus. A large number of practical problems will be solved for which a good knowledge of arithmetic will be necessary. *Non-credit*. Professor DAGGETT. Fees, \$3 plus Text-book, \$1.50, plus apparatus fee.

- c 4. Electric Meters. A course dealing with the construction, principle of operation, use and testing of electrical measuring instruments. Among the subjects treated are: Fundamental electrical principles, current and pressure measuring instruments, power measuring instruments, phase and frequency meters, recording meters, watt-hour meters, meter testing and instrument errors.

Students electing this course should have some knowledge of algebra and trigonometry. *Non-credit*. Professor DAGGETT. Fees, \$3, plus Text-book, \$2.50.

(Note. In all of these courses the text-books will be furnished

from the University for the amounts named, the books becoming the property of the student).

- c 5. Mechanics of Engineering. The theory of mechanics as applied to engineering structures and machines: (1) Statics, the action of forces on rigid bodies. (2) Kinetics, a study of the motion of a body under applied forces. (3) Inertia and friction, work and energy. (4) Study of the internal stresses in bodies and structures on which forces act. Text-book. *Non-credit*. Assistant Professor JAMES. Fee, \$3.

(A knowledge of Algebra through quadratics, analytic geometry and calculus are prerequisite to the course).

English

- c 1. Freshman English. Themes are written throughout the year; analytical outlines are prepared about twice a month; a dozen expository essays are studied in detail, with chief emphasis on the ideas contained in them. In the second term some attention is given to narration. This course aims at (1) correct writing, (2) clear thinking, and (3) thorough reading. Required of all Freshmen. *Credit course, three hours*. The Professors of the English Department. Fee, \$5.
- c 2. The History of English Literature in Outline. A study of representative prose and verses from Beowulf to the end of the Nineteenth Century. The stress falls upon the actual study of literature rather than literary history, biography, or criticism, but a Syllabus is used as a guide. Reports, outlines, and summaries, based on the material read, are required at frequent intervals. Required of all Sophomores in the College of Liberal Arts. *Credit course, three hours*. The Professors of the English Department. Fee, \$5.

Geology

- c 1. Elementary Geology. Lectures with reading and field work; home laboratory work on common minerals and rocks. Open only to students who have had Geology 1 in the College or Geology s 3 in the Summer School, and given to complete these courses. *Credit course, three hours*. Professor COBB. Fee, \$5, plus carrying charges on minerals and rocks.

(This course can be given only when five or more from one central point apply for it, since it is desirable that the teacher visit the class for field work).

- c 2. Advanced Geological Field Work and Special Research. Geology 13 of the College, and to be taken in extension of that

work. *Credit course, one and one-half hours.* Professor COBB. Fee, \$5, plus field expenses of the teachers.

German

- c I. An elementary course equivalent to the first year of high school German. Drill in the essentials of German grammar, translation of easy idiomatic German. *Non-credit.* Professor TOY. Fee, \$3.

Greek

- c A. A course for students who have had no opportunity of studying Greek in the preparatory schools. This course may be counted for entrance only. *Credit course, four hours.* Associate Professor BERNARD. Fee, \$5.

(Note. This course is open only to those students who have begun the work in the Summer School).

- c I. Zenophon's Symposium: Review of important grammatical principles; Homer's Iliad, books, I, II, and III, and Odyssey, book VI; Lysias, Selected Speeches. Reading at sight. Freshman course. *Credit course, four hours.* Professor BAIN and Associate Professor BERNARD. Fee, \$5.
- c 2. Plato, Apology and Crito; Euripides, Hecuba; Aristophanes, Frogs; reading at sight; lectures on Greek Literature. Sophomore course, calls for c I as a prerequisite. *Credit course, three hours.* Professor BAIN. Fee, \$5.
- c 6. Homer: Rapid reading of the entire Odyssey. Junior and Senior elective. Calls for prerequisites. *Credit course, two hours.* Associate Professor BERNARD. Fee, \$5.

History

- c I. Modern European History. A course of study dealing with the primary factors that shaped European history from the close of the great religious war, 1648, (The Thirty Years War) to the present time. The present Europe will be interpreted by a study of the influences that gave its nations their present boundaries, their particular forms of government, and their national ideals and ambitions. Outline studies, texts and reference readings. A Junior and Senior course. *Credit course, two hours.* Professor WAGSTAFF. Fee, \$5.

(Note: Anyone desiring to take this course but not caring for credit may do so by paying the fee).

- c 2. North Carolina History. A study of the leading facts of the history of the state during the Colonial and Revolutionary per-

iods together with a survey of the industrial and educational development down to the Civil War. *Non-credit*. Professor NOBLE. Fee, \$3.

- c 3. American History. A general course covering the social, political and economic development of the United States. Text-book, syllabus, papers and readings. *Credit course, three hours*. Professor HAMILTON. Fee, \$5.
- c 4. American History. An outline course in American History. Text-book and syllabus. Less detailed than c 3 above. Designed for high school teachers of American History. *Non-credit*. Professor HAMILTON. Fee, \$3.
- c 5. Civics, "How we are governed in North Carolina and the United States." An elementary course in government. *Non-credit*. Professor HAMILTON. Fee, \$3
(This course will not be given until September, 1915).

Latin

- c A. Cæsar's Gallic War: Translation; special study of case constructions, analysis of subordinate clauses, exercises in indirect discourse; vocabulary and word-derivation; studies in the content. *Non-credit*. Professor HOWE. Fee, \$3.
- c 1. Cicero, De Senectute and De Amicitia; Livy, selections; Horace, selected Odes and Epodes; exercises in syntax based on the text read; sight translation. This course is the same as course 1 offered in the regular session. *Credit course, four hours*. Professor HOWE. Fee, \$5.
- c 2. Latin Composition. The course will begin with translation into Latin of detached sentences illustrating the general principles of syntax and word-order; the second half will deal with continuous narrative and with questions of diction and style. *Credit course, two hours*. Assistant Professor HENRY. Fee, \$5.

(Note. These courses will be of value particularly to high school teachers of Latin).

Mathematics

- c 1. A review of the principles of arithmetic. Special attention to High School arithmetic. *Non-credit*. Professor NOBLE. Fee, \$3.
- c 2. Solid Geometry. A careful study of the text. Original problems. Text-book. *Non-credit*. Professor HENDERSON. Fee, \$3.

