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Advisory Council

Edmund Ezra Day, *President of the University; Chairman*

Martin P. Catherwood, *Dean of the School*

John L. Collyer, *President, The B. F. Goodrich Company*

Frank S. Columbus, *Chairman, New York State Legislative Board, Brotherhood of Locomotive Firemen and Enginemen*

Edward R. Corsi, *Industrial Commissioner of the State of New York*

Mary H. Donlon, *Chairman, New York State Workmen's Compensation Board*

Marion B. Folsom, *Treasurer, Eastman Kodak Company*

Harold J. Garno, *Secretary-Treasurer, New York State C.I.O. Council*

William B. Groat, *former Counsel, New York State Joint Legislative Committee on Industrial and Labor Conditions*

Martin F. Hilfinger, *President, Associated Industries of New York State, Inc.*

Louis Hollander, *President, New York State C.I.O. Council*

Harold Keller, *Commissioner, New York State Department of Commerce*

Thomas A. Murray, *President, New York State Federation of Labor*

John S. Parke, *Executive Vice-President, Presbyterian Hospital, New York City*

Francis T. Spaulding, *Commissioner of Education of the State of New York*

George Sturges, *Secretary-Treasurer, Buffalo Federation of Labor*

Walter C. Teagle, *former Chairman of the Board, Standard Oil Company of New Jersey*

Faculty

Edmund Ezra Day, Ph.D., LL.D., *President of the University*
Martin P. Catherwood, Ph.D., *Dean of the School and Professor*
Leonard Palmer Adams, Ph.D., *Director of Research and Professor*
Earl Brooks, M.A., *Secretary of the School and Professor*
Ralph Norton Campbell, M.B.A., *Director of Extension and Professor*
Carl Arnold Hanson, Ph.D., *Assistant Director of Student Personnel*
James Gormly Miller, B.S. in L.S., *School Librarian*
Charles Kenneth Beach, Ph.D., *Professor*
John M. Brophy, Ph.D., *Assistant Professor*
Temple Burling, M.D., *Professor*
James Campbell, M.S., *Counselor*
Jesse Thomas Carpenter, Ph.D., *Acting Associate Professor*
Mills Gardner Clark, M.A., *Assistant Professor*
Eleanor Emerson, A.B., *Assistant Professor*
Lynn Arthur Emerson, Ph.D., *Professor*
Morten Sutherland Estey, M.A., *Assistant Professor*
Robert Harry Ferguson, Ph.D., *Assistant Professor*
Lois Spier Gray, A.B., *Extension Supervisor, Buffalo*
Dave Hyatt, M.A., *Assistant Professor*
John James Jehring, M.A., *Assistant Professor*
Vernon Hortin Jensen, Ph.D., *Professor*
Milton R. Konvitz, Jur.D., Ph.D., *Associate Professor*
Alexander Hamilton Leighton, M.D., *Professor*
Philip John McCarthy, Ph.D., *Associate Professor*
John Wilkinson McConnell, Ph.D., *Professor*
Jean Trepp McKelvey, Ph.D., *Associate Professor*
Mary Oona Marquardt, M.A., *Assistant Professor*
Philomena Marquardt, M.S., *Assistant Professor*
Royal Ewart Montgomery, Ph.D., *Professor of Economics*
Joseph Edward Morton, Jur.D., D.Sc., *Professor*
Bernard G. Naas, B.S. in L.S., *Assistant College Librarian*
Maurice Frank Neufeld, Ph.D., *Professor*
Kathryn Ernst Ranck, A.B., *Counselor and Instructor*
Effey L. Riley, M.A., *Associate Professor*
Alpheus Waldo Smith, Ph.D., *Assistant Director of Extension and Professor*
John Newton Thurber, Ph.D., *Assistant Professor*
N. Arnold Tolles, Ph.D., *Professor*
William Foote Whyte, Ph.D., *Professor*
Bertram Francis Willcox, A.B., LL.B., *Professor of Law*
Andrew Leon Winsor, Ph.D., *Director of the School of Education and Professor*

History and Purpose

THE New York State School of Industrial and Labor Relations at Cornell University was authorized in 1944 by act of the New York State Legislature. It is the first institution in the country which offers a comprehensive program of professional training at the undergraduate and graduate levels in the field of industrial and labor relations.

The law which established the School stated its objectives and purposes in the following terms:

> It is necessary that understanding of industrial and labor relations be advanced; that more effective cooperation among employers and employees and more general recognition of their mutual rights, obligations, and duties under the laws pertaining to industrial and labor relations in New York state be achieved; that means for encouraging the growth of mutual respect and greater responsibility on the part of both employers and employees be developed; and that industrial efficiency through the analysis of problems relating to employment be improved...it is hereby declared to be the policy of the state to provide facilities for instruction and research in the field of industrial and labor relations through the maintenance of a school of industrial and labor relations....
>
> The object of such school shall be to improve industrial and labor conditions in the state through the provision of instruction, the conduct of research, and the dissemination of information in all aspects of industrial, labor, and public relations, affecting employers and employees.

The School opened at Cornell University on November 5, 1945. It operates through three major functional divisions: (1) undergraduate and graduate instruction, (2) extension, and (3) research and information.

The School is now equipped to provide training at both the undergraduate and graduate levels for those who look forward to professional careers in industrial and labor relations. The program at Cornell is designed to serve impartially the needs of labor and management. Young men and women who expect to work in industrial corporations, labor unions, or governmental agencies are required to complete a common core of 87 hours of academic work, plus work-training in the

summers. The balance of the courses required for the undergraduate degree may be elected from courses offered by the School or other divisions of Cornell University.

The graduate curriculum offers advanced training in industrial and labor relations and in industrial education. It is conducted through courses, seminars, and research. Relevant courses in other divisions of the University are open to graduate students majoring in this field.

Selection of Students

BECAUSE of limited housing and teaching facilities, the School's enrollment for 1948–1949 has been limited to about 300 undergraduate and 30 graduate students. The number of undergraduates will not be increased substantially in the next few years. The inquiries and applications during the past year indicate that many more students wish to enter than can possibly be admitted.

In selecting students, the School will endeavor to secure geographic representation of qualified students from all parts of New York State. A limited number of students from other states and other nations will be admitted. The School will seek to maintain a balance in its student body of those interested in careers in labor, management, and government.

The Committee will select students in terms of the following criteria:

1) *Academic preparation:* Evidence of the satisfactory completion of secondary school is required. Fifteen units of academic subject matter, including English, Social Studies, Science, Mathematics, and Foreign Language are recommended. Since the first two years of the curriculum are heavily weighted with the social sciences and demand heavy reading assignments, the applicant should be able to read rapidly and with understanding a wide variety of materials. Applicants who do not offer the New York State Regents Examinations to cover entrance subjects are required to take the Scholastic Aptitude Test of the College Entrance Examination Board.

2) *Personal Qualifications:* Demonstrated ability to work cooperatively with other individuals and groups and for leadership in promoting these cooperative relationships will be given substantial weight.

3) *Work Experience:* Evidence of work experience in government, labor, or management, either on a full-time or a part-time basis, is desirable. Applicants who have not had work experience may be required to spend the summer prior to their matriculation in gainful employment in addition to the work-training requirements described in the undergraduate curriculum.

A limited number of applications may be accepted from mature persons who present evidence of extensive and appropriate work experience and demonstrate competence to pursue university work in this field. Such persons will follow an approved program and normally are not candidates for a degree.

The School follows the admission procedure of Cornell University as described on pages 27–31 of the *General Information* bulletin of the University. The official application blanks (listed below) can be obtained from the Director of Admissions, Cornell University. In addition, each applicant is required to submit a 500-word statement (preferably typewritten) indicating his background and interest in the field of industrial and labor relations.

The required materials are:

1) Form A. The official application blank of Cornell University.
2) Form B. Principal's report on character and personality.
3) Form C. Secondary school record to be supplemented with Regents reports, College Entrance Examination Board reports, etc.
4) Two completed recommendation forms.
5) If the applicant has attended any other collegiate institutions, official transcripts must be submitted.
6) 500-word statement of interest in industrial and labor relations.

The above materials, required of all applicants, must be in the hands of the Director of Admissions of Cornell University by the following dates: For spring term: December 1, 1948. For fall term: March 1, 1949.

The School will begin the review of applications on the above dates and will, as speedily as possible, notify each applicant of the decision in his case.

TRANSFER FROM OTHER INSTITUTIONS

As vacancies occur, the School will accept a limited number of students who have attended other divisions of Cornell or other collegiate institutions. Transfer students will be expected to complete a minimum of four terms of work in the School. Such transfers usually result in a loss of credit because the program of the School contains so many required courses.

The Undergraduate Curriculum

THE following outline of the curriculum indicates its scope and specialization. Complete course descriptions can be found on pages 15–21. Students must complete 120 hours of academic work, 87 hours of which are required subjects, plus the summers of work-training, plus the University required courses in Physical Training and, for men, the required courses in Military or Naval Science and Tactics.

Most of the courses of the freshman and sophomore years are offered by the faculty of the College of Arts and Sciences. Italicized courses are offered by the staff of the School. Only courses required by the School are listed below.

FRESHMAN YEAR

First Semester	*Credits*	*Second Semester*	*Credits*	
English 111 (A&S)	3	English 112 (A&S)	3	
Sociology 101 (A&S)	3	American History 152 (A&S)	3	
Psychology 441 (A&S)	3	*Industrial Occupations & Processes* 2	2	
Background of Industrial and and Labor Relations 1	3	*Background of Industrial and Labor Relations* 1A	3	
Mathematics 111 (A&S)*	1			
	13		11	24

*Students who pass the University's placement test in mathematics may substitute an elective.

Summer Work-Training — 10 weeks

SOPHOMORE YEAR

Modern Economic Society 105 (A&S)	3	*Statistics I, 40*	3	
Government 101 (A&S)	3	Modern Economic Society 106 (A&S)	3	
American Ideals 22	3	Organization & Management of Production 3236 (Eng)	3	
Ethics 221 (A&S)	3	Accounting 84 (Hotel)	3	
		Speech 103 (A&S)	3	
	12		15	27

Summer Work-Training — 10 weeks

**Abbreviations:*
A&S: College of Arts and Sciences
Hotel: Department of Hotel Administration
Eng: College of Engineering
B&PA: School of Business and Public Administration

JUNIOR YEAR

First Semester	*Credits*	*Second Semester*	*Credits*	
Economics of Wages and Employment 21	3	*Labor Union Organization & Management 43*	3	
Business & Industrial History 24	3	*Corporation Finance* 311 (A&S)	3	
Labor History 42	3	*Labor Relations Law & Legislation 59*	3	
Human Relations in Industry 44	3	*Personnel Management* 45	3	
	12		12	24

Summer Work-Training — 10 weeks

SENIOR YEAR

Labor Relations — Contract Making & Administration 60	3	*Social Security* 63	3	
Protective Labor Legislation 62	3			
Principles of Public Administration 100A (B&PA)	3			
	9		3	12
				87

WORK-TRAINING PROGRAM

Every candidate for the undergraduate degree from the New York State School of Industrial and Labor Relations must have completed thirty weeks of work-training (or its equivalent) off the campus. These programs are designed to give the trainees first-hand work experience and an understanding of the viewpoints, problems, and procedures of both management and labor in the conduct of industrial and labor relations.

During the summer following the freshman year students who have not had adequate previous work experience in industry will be required to spend at least ten weeks in gainful employment. The gainful employment should bring the student into close contact with basic productive, distributive, or service activity. This part of the required work-training may be waived for veterans. The student will be responsible for securing the job but the School will assist in every possible way.

During each of the summers (or equivalent work-training periods) following the sophomore and junior years, students will be required to work for ten weeks with a labor union, with a business enterprise, or in an appropriate governmental agency. The work-training program will be in terms of the experience level of the individual student and

will be designed to provide the optimum integration of experience and education. Students will be given grades and three credits for each of the last two summers of work-training. These credits will be in addition to the 120 hours of academic work required for graduation.

A trainee will usually be paid by the employer the standard wage for the job which he does. Students who have possible contacts with prospective employers can secure the permission of the School to work in a specific organization. However, students should confer with the office of the Director of Student Personnel before approaching any employer concerning summer work-training employment.

During the summer, at least 200 students are usually engaged in work-training programs. Although most of the students are located in New York State, a number work in other states where work opportunities may exist. Because suitable work-training opportunities are limited in the Ithaca area, students should plan to spend their summers in other locations.

DEGREE REQUIREMENTS

To be eligible for the degree of Bachelor of Science, students are required to complete successfully the prescribed curriculum and electives, the summer work-training, and the Physical Training and Military or Naval Science requirements of the University.

In order to maintain good standing in the School and to be eligible for graduation the student must have an average of at least 70% in all subjects taken at the University. The passing grade for a course in the University is 60%.

All physically qualified undergraduate men who are American citizens must take military training during their first four terms. Enrollment in the basic course in Military Science and Tactics is the usual way of meeting this requirement. Regular or Contract students in the Naval ROTC may substitute the first four terms of Naval Science. Students transferring to Cornell from other institutions are exempt from part or all of the requirement, according to the number of terms of residence in college before transfer. Service in the armed forces in World War II satisfies the University requirement for military training. Entering students, who have had ROTC training in secondary or military schools, are requested to bring WD AGO Form 131 – Student's Record for presentation to the Military Department at the time of registration.

Credit either in the Basic Course in Military Science and Tactics (four terms) or in the first four terms of Naval Science does not count toward the 120 hours required for graduation in the School of Industrial and Labor Relations.

All undergraduate students are required to complete four terms of

work, three hours a week, in physical training, as described on page 32. This is a requirement of the first four terms. For students entering with advanced standing, the number of terms of physical training required is reduced by the number of terms which the student has satisfactorily completed (not necessarily including physical training) in a college of recognized standing.

STUDENTS FROM OTHER DIVISIONS OF CORNELL

A special introductory survey course for students from other colleges of Cornell is offered each term (see page 21). In addition, many of the courses offered by the School can be elected by students from other divisions. Men and women who are interested in taking courses in the School should check the prerequisites and enroll with the advisers in their colleges.

SUMMER SCHOOL COURSES

Because regular students of the School spend their summers in work training, the full curriculum is not offered in the Summer Session of the University.

To place the facilities of the University at the disposal of those persons who have a part of the summer free for study, the Summer Session offers courses ranging from one to six weeks in length. The School of Industrial and Labor Relations will offer a limited number of undergraduate and graduate courses designed to meet the needs of persons in government, industrial, and labor organizations. More extensive offerings are available in the field of Industrial Education. Prospective students should apply to the Director of the Summer Session for the Announcement which will be available about February 1, 1949.

LIBRARY

In addition to the resources of the University and other specialized libraries, the School is building a comprehensive book collection in the field of industrial and labor relations. At the same time, the organization of a current periodical, newspaper, and serials collection has been under way. The School library now holds approximately 12,500 volumes, plus a substantial number of union-management contracts, company and union reports, et cetera. The School receives regularly periodicals, house organs, labor union journals, press releases, serial publications, and labor-management services. Important collections of non-current books and documents have been acquired and additional materials are constantly added. It is expected that the collection at the School will eventually take its place as one of the most complete in the country.

VISITING SPEAKERS

The School regularly brings to the campus leaders in government, labor, and management who are engaged in industrial and labor relations. These men and women usually lecture in classes or to the student body, and are available for informal discussions. In addition, the Mary Donlon Lectureship provides funds for outstanding speakers on workmen's compensation and related social security subjects.

Expenses

TUITION AND FEES

TUITION is free to undergraduate students who, at the time of their admission, are, and, for at least 12 months prior thereto, have been *bona fide* residents of the State of New York. All students pay University fees.

Out-of-state regular students pay tuition of $150 a term or $300 for the academic year, plus University fees.

University fees:	*First term*	*Other terms*	*Final term*
Matriculation	$13.00	——	——
Laboratory and Library	10.00	$10.00	$10.00
Administration	10.00	10.00	10.00
Health and Infirmary*	15.00	15.00	15.00
Willard Straight Membership Fee*	5.00	5.00	5.00
Physical Recreation*	5.00	5.00	5.00
Graduation	——	——	10.00
Student Activities Fee	1.00	1.00	1.00

*For a statement of the privileges given in return for these fees, see the *General Information* bulletin.

Tuition and other fees become due when the student registers. The University allows twenty days of grace after the last registration day of each term of the regular session.

HOUSING AND LIVING COSTS

Information about housing and living costs is contained in the *General Information* bulletin of the University.

Scholarships and Financial Aid

A booklet describing all the scholarships and loan funds of the University can be obtained by prospective students from the Director of Admissions and by students in residence from the Counselor of Students. Opportunities for part-time work in University operations are described in the *General Information* bulletin. In addition to the University resources, the School has the following scholarship funds for students who have completed one or more terms in the School.

Daniel Alpern Memorial Scholarship: Grants of $100 to $500 a year are made to needy and able undergraduate students.

Frank J. Doft Memorial Fund: Grants are made to needy and capable undergraduate students with preference for the physically handicapped.

Sidney Hillman Memorial Scholarship: Grants of $200 to $500 a year are made to needy and able undergraduate students.

Daniel Alpern Memorial Prizes: Awards of $100 and a silver key are made to the outstanding graduates elected by the faculty on the basis of scholarship and student activities.

Inquiries should be directed to the Director of Student Personnel.

*Courses of Instruction**

REQUIRED COURSES

FRESHMAN YEAR

ENGLISH (A&S) 111, 112. Credit three hours a term. Fall and spring terms respectively. 111 is a prerequisite to 112.

Introductory course in reading and writing. The aim of the course is to increase the student's ability to communicate his own thoughts and to understand the thoughts of others.

SOCIOLOGY (A&S) 101. Credit three hours. Either term.

An introduction to the study of societies as interrelated systems; their institutional and class structures; social factors in personality formation; selected major problems of contemporary American society as seen in the context of our own social system.

PSYCHOLOGY (A&S) 441. (For students in Industrial and Labor Relations). Credit three hours. Fall term.

An introductory course in psychology designed to provide fundamentals necessary for later work in social psychology, human relations, and personnel administration. Topics covered include the physiology of the nervous system, human motivation, emotions, perception, learning, mechanics of adjustment, and personality.

BACKGROUND OF INDUSTRIAL AND LABOR RELATIONS (ILR) 1, 1a. Credit three hours. Fall and spring terms respectively. Open only to ILR students.

This course is designed to give the student an understanding of the historical development of our economic institutions and the nature of the problems incident to economic change and development, as part of the background for understanding and analysis of the basic present-day issues in the field of industrial and labor relations.

MATHEMATICS (A&S) 111. Credit one hour. Either term. For students who have not satisfactorily passed the University Mathematics test.

A review course in arithmetic and algebra to prepare students for courses in Accounting and Statistics.

AMERICAN HISTORY (A&S) 152. Credit three hours. Spring term.

The course covers the period of American history from 1861 to 1948.

INDUSTRIAL OCCUPATIONS AND PROCESSES (ILR) 2. Credit two hours. Either term. Open only to ILR students.

An overview course in occupational information. It deals with industrial and business processes and with types of work jobs at various levels. Field work includes visits to typical industrial and commercial plants in Ithaca and nearby cities.

**Abbreviations:*
A&S — College of Arts and Sciences
BPA — School of Business and Public Administration
Eng — College of Engineering
HA — Department of Hotel Administration
ILR — School of Industrial and Labor Relations

SOPHOMORE YEAR

STATISTICS I (ILR) 40. (Statistical Reasoning.) Credit three hours. Fall and spring terms. Prerequisites: Mathematics 111 or successful passing of the Cornell Mathematics test.

An introduction to basic concepts and applications of statistics: description of frequency distributions (averages, dispersion and simple correlation) and introduction to statistical inference. This course may be taken as a prerequisite to certain of the specialized courses on applications of statistics offered in various departments. It is not intended for students who have had, or are planning to take, college mathematics through calculus; such students should take Statistics 40B (Interdepartmental course, Statistics 103).

ECONOMICS (A&S) 105, 106. Credit three hours. Fall and spring terms respectively.

A survey of the existing economic order, its more salient and basic characteristics, and its operations.

GOVERNMENT (A&S) 101. Credit three hours. Fall term.

A general introduction to American national government and politics. Emphasis is placed upon historical development, organization, powers, and practical working.

ETHICS (A&S) 221. Credit three hours. Fall term.

Basic moral ideas of Western civilization as interpreted by its major philosophers; Greek and Christian ethics; the rise of modern liberalism; contemporary issues.

AMERICAN IDEALS (ILR) 22. Credit three hours. Fall term. Not open to freshmen.

An analysis of fundamental American political and legal ideals, as reflected and expressed in leading cases of the United States Supreme Court. The topics discussed are: freedom of the person, freedom of labor, freedom of contract, freedom of property, freedom of enterprise, the meaning of rule of law, the function of law, structure and philosophy of the American legal system, contrast with Soviet and Fascist legal systems.

ORGANIZATION AND MANAGEMENT OF PRODUCTION (Eng) 3236. Credit three hours. Either term.

An introductory course in the field of industrial management. The course deals with principles of mass production, plant layout, administrative organization, measurement of productivity, job analysis, time and motion study, incentive plans.

ACCOUNTING (HA) 84. Credit three hours. Either term. One lecture session and four hours of laboratory.

Fundamental principles of accounting with emphasis on the interpretation of financial statements.

SPEECH (A&S) 103. Credit three hours. Either term.

Practice in discussion of current problems by use of various forms: round table, panel, symposium, dialogue, parliamentary, lecture-forum; study of the principles of systematic investigation, reflective thinking, group procedure, and leadership in discussion; conferences.

JUNIOR YEAR

ECONOMICS OF WAGES AND EMPLOYMENT (ILR) 21. Credit three hours. Fall term. Prerequisite: Economics 105 and 106 or the equivalent.

A general analysis of the economic factors in the determination of wages and the terms of employment. Major aspects of the following topics will be studied: composition of the labor force; trends in money and real earnings and national income; theories of wages; trade union policies and practices and their effects upon wages and

employment; economic aspects of governmental regulation of wages and hours; employment theories and policies.

BUSINESS AND INDUSTRIAL HISTORY (ILR) 24. Credit three hours. Fall term.

An analytical study of the economic development of selected major industries such as coal mining, steel, railroads, printing, textiles, clothing, shipping, rubber products, electrical goods, and automobiles.

LABOR HISTORY (ILR) 42. Credit three hours. Fall term. Prerequisites: Economics 105–106 and American History.

The historical development of American labor movements before the Civil War is surveyed generally. Special emphasis is placed upon the rise of organized labor movements in the United States since 1865. Problems which faced organizations such as the Knights of Labor, the AFL, and the CIO are discussed in detail, along with various theories of the labor movement which help to explain the historical developments which have occurred. More than two-thirds of the course is devoted to a study of the history and objectives of representative international unions within the AFL and the CIO. The problems of unorganized labor are also analyzed.

LABOR UNION ORGANIZATION AND MANAGEMENT (ILR) 43. Credit three hours. Spring term. Prerequisite: Labor History.

A comprehensive review of the structure, government, and administrative problems of American labor unions as evidenced in the local union, joint boards, city centrals, state federations, internationals, and the national AFL and CIO. Detailed examination is made of labor union membership qualifications and rules, justice machinery, finances and dues, the labor press, research, education, public relations, political action, benefits and insurance, and cooperative ventures of unions. Emphasis is placed upon the relationship between the internal operation of unions and their collective bargaining activities. Each student is expected to make an intensive study of the administrative organization and operation of one international union.

CORPORATION FINANCE (A&S) 311. Credit three hours. Either term. Prerequisite: Accounting.

A study of the financial practices of business corporations in the United States; types of corporate securities; sources of capital funds; determination and administration of corporate incomes; financial difficulties and corporate reorganizations; the relation of corporate practices to the functioning of the American economic system; and the regulatory activities of the Securities and Exchange Commission.

HUMAN RELATIONS IN INDUSTRY (ILR) 44. Credit three hours. Fall term. Prerequisite: Psychology 441 and Sociology 101. (Equivalent courses may be substituted by special arrangement with instructor.)

An analysis and appraisal of the social and psychological factors important in human relations in industry. The course is aimed at giving the student some general acquaintance with the field and some methods for approaching the human problems he is likely to encounter. Topics covered include appropriate orientation in terms of natural and social science, the equilibrium of the individual, the equilibrium of the group, union-management relations, factors affecting productivity and the properties of industrial hierarchies.

PERSONNEL MANAGEMENT (ILR) 45. Credit three hours. Either term. Prerequisite: Social Psychology.

A study of the ways of working with employees to insure the best use of individual capacities, the greatest amount of personal and group satisfaction, and maximum service to the employing organization. Principles and methods of personnel organi-

zation, recruitment, selection, training, hours and wages, working conditions, special services, and personnel research are considered.

LABOR RELATIONS LAW AND LEGISLATION (ILR) 59. Credit three hours. Spring term.

This course will consider the common and statute law background of labor relations, dealing with the right to organize and pursue self-help activities. The significant decisions of the courts in relation to the activities of labor unions will be considered. The Sherman Anti-Trust Act, the Clayton Act, the National Labor Relations Act, the Railway Labor Act, and the Labor-Management Relations Act will all be considered. For the year 1948–1949 this course will also be offered during the first term for students registered in ILR 60.

SENIOR YEAR

LABOR RELATIONS—CONTRACT MAKING AND ADMINISTRATION (ILR) 60. Credit three hours. Fall term. Prerequisite: ILR 59. Open only to seniors.

Analysis of substantive issues in labor relations, including a survey of the techniques and scope of contract making, with consideration of the problems growing out of administration, application, and interpretation of the collective agreement.

PROTECTIVE LABOR LEGISLATION (ILR) 62. Credit three hours. Fall term.

A survey of the nature of the problems and the basis for federal and state legislation in the fields of industrial health and safety; minimum wages and hours; industrial housing; discrimination in employment; employment of women; child labor. Special attention is given to state and federal minimum wage and hour laws, industrial health and safety regulations, and related administrative organizations.

SOCIAL SECURITY (ILR 63). Credit three hours. Spring term. Prerequisite: ILR 62.

An historical and analytical study of the philosophy, legislative history, administration, and economic incidence of social insurance against the risks of industrial accident, sickness, old age, and unemployment. Students will be asked to evaluate current proposals for modifying or extending American social security legislation. Private and voluntary efforts to guarantee security will be studied as they relate to governmental programs.

PRINCIPLES OF PUBLIC ADMINISTRATION (B&PA) 100A. Credit three hours. Either term. Open only to seniors.

Exposition, analysis, and appraisal of the principles and practices of business and public administration. Major economic and political influences on modern administration, the process of policy-making, organization systems, the methods of coordination, planning control, and evaluation. The dynamic factors in administration, the executive function, the role of the supervisor, personnel policies and management, similarities and contrasts in business and public administration. Cases are used.

ELECTIVE COURSES

Students in the School, subject to the approval of their advisers, may elect courses offered by other Faculties of Cornell, as well as the following:

ELEMENTS OF LAW (ILR) 23. Credit three hours. Spring term. Prerequisite: ILR 22.

Principles of business law as applied in industrial and labor relations: the elements of the law of contract, agency, negotiable instruments, partnerships, corporations, property and business torts. Text and case materials will be used.

STATISTICS (ILR) 40B. (Interdepartmental course, Statistics 103.) Credit three

hours. Fall term. Prerequisites: Mathematics 153–154 or 171 or the equivalent. May be substituted for ILR 40.

An introduction to the fundamental pattern of thought and principal techniques of statistical analysis. This course provides a more thorough grounding in statistical methods than does Statistics 40.

ECONOMIC STATISTICS (ILR) 41. Spring term. Credit three hours. Prerequisite: Statistics I, 40 or 40B or equivalent.

Application of statistical techniques to economic data with particular emphasis on the analysis of index numbers, time series, income distributions, and of empirical demand and cost functions.

DESIGN OF SAMPLE SURVEYS (ILR) 46. Fall term. (Interdepartmental course, Statistics 205.) Credit three hours. Prerequisite: one term of Statistics.

Basic concepts of sampling theory and their application to experimental design in the social studies: accuracy and costs of various specific sampling designs, use of prior information, and problems of measurement (interviewers' bias, etc.).

AUDIO-VISUAL METHODS (ILR) 48. Credit two hours. Fall term. Open to juniors, seniors, and graduate students.

A discussion of the effectiveness of audio-visual methods as a means of communication. Training in the preparation and proper use of audio-visual materials and the methods of operation of various kinds of audio-visual devices. Stress is placed on the contributions of audio-visual methods to the solution of problems of mass communication.

LABOR RELATIONS—CASE ANALYSIS (ILR) 61. Credit three hours. Spring term. Open only to seniors who have taken ILR 60.

Intensive study of current and recent situations and cases in the field of labor relations, ranging from nationally important issues to localized plant issues in various industries. The purpose of this course is to give an opportunity for a more complete and thorough analysis of the problems in labor relations.

ADVANCED PERSONNEL MANAGEMENT (ILR) 64. Credit three hours. Fall term. Prerequisite: ILR 45. Open only to seniors and graduate students.

Case studies of specialized personnel management problems in industrial and commercial organizations.

STATISTICS II (ILR) 65. Spring term. Credit three hours. Prerequisite: Statistics I.

Second term of elementary statistical methods course providing students with further basic training in statistical method without immediate application to any particular social studies problem. This course covers such topics as multiple correlation analysis, some analysis of variance, and some of the theoretical distributions, used in the fields of social experiment and social surveys (chi-square F, t, etc.)

WAGE STRUCTURES (ILR) 66. Credit three hours. Spring term. Prerequisite: ILR 21 or its equivalent.

Analysis of the behavior of wages in different types of labor markets. Differences in wages as between industries, regions, localities, establishments, occupations, and individual workers. Relations between wage rates and other aspects of employment. Impact of the policies of managements, unions, and governments. Effects of wage differences on costs, efficiency, income, and employment.

PRINCIPLES OF HUMAN RELATIONS (ILR) 67. Credit three hours. Spring term. Prerequisite: Human Relations in Industry, ILR 44. (For students outside ILR, other courses may be accepted as substitute prerequisites if special arrangements are made with instructor).

Description and illustrations of some principles governing human relations with particular reference to diagnosis and treatment of situations of social and psychological stress. Case material will be analyzed as a means of demonstrating use of the principles. Although emphasis is on problems important in industrial and labor relations, these will be considered in a broad social and cultural context.

PUBLIC RELATIONS (ILR) 68. Credit three hours. Either term. Open only to seniors.

An analysis of the major types of public relations activities of industrial and labor organizations with emphasis on a critical appraisal of policies and methods for the effective presentation of their position to their own memberships, to government agencies, and to the public. Each student will prepare a case study in public relations on a particular question for an industrial or labor organization.

PATTERNS OF THOUGHT (ILR) 69. Credit three hours. Open to sophomores and advanced students. [Not offered during school year 1948–1949.]

Semantics, deductive reasoning, and social study methods, as related to problems in industrial and labor relations. The role of language, intelligence, myth, authority, logic, and scientific methods in the formulations of problems and solutions in social studies, particularly in industrial and labor relations.

ADMINISTRATIVE PRACTICES AND PROCEDURES (ILR) 70. Credit three hours. Spring term. Open only to seniors.

The purpose of the course will be to give students a working knowledge of problems of policy and administration with particular reference to industrial and labor relations.

CIVIL RIGHTS IN INDUSTRIAL AND LABOR RELATIONS (ILR) 72. Credit three hours. Open to seniors and graduate students; others, by special permission. [Not offered during school year 1948–1949.]

Civil rights generally under the Constitutions of the United States and the State of New York; civil rights in industrial and labor relations: right to work without discrimination in private and public employment; right to join or not to join a union; protection against arbitrary discipline; rights of aliens; rights of women; freedom of speech and press (libel, slander, privacy, Post Office censorship, contempt of court, picketing, handbill distribution, street meeting, registration of union agents, etc.); loyalty oath; seizure of plants; control of subversive activities; Congressional investigations; civil rights and the Taft-Hartley Act (limits on the right to strike, anti-Communist affidavits, etc.).

LABOR LAW (ILR) 75. Credit three hours. Spring term. Given jointly with the Law School. Open only to seniors by permission of instructor.

Intensive analysis of selected group of legal problems arising out of labor relations; based on documentary materials including briefs, minutes, court and agency proceedings. Weekly or bi-weekly written reports are required.

DEVELOPMENT AND ORGANIZATION OF INDUSTRIAL EDUCATION (ILR) 80. Credit two hours. Fall term. Prerequisite: Personnel Management.

An overview course giving attention to factors which brought about the demand for industrial training; influence of leaders in industry, labor, education, and social work; scope and content of current programs in industrial arts, vocational and technical education; groups served; methods of instruction in common use; influence of legislation. Course will cover industrial education in the public schools and training within industry.

JOB ANALYSIS—METHODS AND APPLICATIONS (ILR) 81. Credit two hours. Fall term. Prerequisite: Personnel Management.

A study of the development, uses, and limitations of job analysis, and its application to training, service rating, and job evaluation. The course will cover the economic and social factors involved in the application of job analyses; qualifications of an analyst; methods of conducting analyses; development of skill in making job analyses; and outgrowths such as job descriptions, job specifications, and job schedules.

ORGANIZATION OF TRAINING IN INDUSTRY (ILR) 82. Credit two hours. Spring term.

A study of purposes underlying the establishment of plant training programs; patterns of organization, administration, and operation; out-of-plant supplementary educational facilities; sources and qualifications of plant training personnel; and types of programs such as orientation, on-the-job training, apprenticeship, supervisor and executive training, and out-of-hours courses.

CURRICULUM CONSTRUCTION IN INDUSTRIAL EDUCATION (ILR) 83. Credit two hours. Spring term.

Deals with principles and procedures of curriculum construction for industrial and technical schools and technical institutes.

APPRAISAL, USE AND DEVELOPMENT OF INSTRUCTIONAL MATERIALS (ILR) 84. Credit two hours. Fall term.

A study of the various types of instructional materials such as textbooks, information and job sheets, and audio-visual aids; the conditions under which the various types are effective; methods of use; sources and costs; and the processes involved in developing instructional materials for specific purposes.

INSTRUCTIONAL METHODS IN BUSINESS AND INDUSTRY (ILR) 88. Credit two hours. Fall term. Open only to seniors; others, by permission of instructor.

Study of instructional methods used in on-the-job training, organized classes in technical and other subjects, and conferences of various types. Special emphasis will be placed on group discussion, such as symposiums, conferences, and panels and their use in the field of business and industry. Students will be expected to lead group discussions on current topics and problems in this field.

SPECIAL STUDIES (ILR) 99. Credit three hours. Either term.

Individual research by mature undergraduates under faculty direction.

COURSES FOR STUDENTS IN OTHER DIVISIONS OF THE UNIVERSITY

SURVEY OF INDUSTRIAL AND LABOR RELATIONS (ILR) 10. Credit three hours. Either term.

A survey for students in other divisions of the University. The course will include an analysis of the major problems in industrial and labor relations: labor union history, organization, and operation; labor market analysis and employment practices; industrial and labor legislation and social security; personnel management and human relations in industry; collective bargaining, mediation, and arbitration; the rights and responsibilities of employers and employees; the major governmental agencies concerned with industrial and labor relations.

In addition, students in other divisions of the University may register for other work in the School for which they possess appropriate prerequisites.

The Graduate Curriculum

THE New York State School of Industrial and Labor Relations in conjunction with other Schools and Departments of the University offers the following areas of specialization at the graduate level: Collective Bargaining, Mediation, and Arbitration; Human Relations in Industry; Industrial Education; Industrial and Labor Legislation and Social Security; Labor Market Economics and Analysis; Labor Union History, Organization, and Management; Personnel Management; Economic and Social Statistics; Industrial and Labor Problems. Admission to graduate standing is determined by the Graduate School.

The School offers an opportunity for candidacy for the degrees of Master of Science in Industrial and Labor Relations (M.S. in I.L.R.) and Ph.D. In general, undergraduate specialization substantially equivalent to that offered by the School is a prerequisite for admission to the Graduate School. An applicant's work experience and other relevant activities will also be taken into account. Subject to the overall limitation of the number of students which the School may admit, graduates of accredited institutions who are without the necessary undergraduate specialization, may apply for admission as special students. If such students are admitted, a period of from one to three terms is usually required in order to fulfill requirements for admission to the Graduate School.

Students interested in receiving the degree of Master of Science in Education may become candidates for this degree with specialization in Industrial Education. The work toward this degree is planned jointly by the School of Industrial and Labor Relations and the School of Education. Residence, language, and other requirements for each degree will be found elsewhere in this Announcement.

A minimum of two terms of residence for the Master of Science and six terms of residence for the Ph.D. degrees are required by the University. With the approval of the candidate's Special Committee and of the General Committee of the Graduate School, a maximum of two terms of work may be done in absentia for the Ph.D. degree. Under appropriate circumstances, and with the approval of the candidate's Special Committee and of the Dean of the Graduate School, residence credit can be earned during the summer. Most candidates will require between one and two years to complete the degree of Master of Science in Industrial and Labor Relations, depending on the extent to which

their prior training has provided specialization equivalent to that offered by the undergraduate program of the School, the amount of time spent on outside work, the academic work load, and similar factors.

In addition to courses available in the School, courses may be selected in other divisions of the University. A wide range of specialization within the field of Industrial and Labor Relations is possible. Details as to courses, thesis and examination requirements, and other procedural matters may be determined by the applicant upon admission to graduate standing.

A candidate for the M.S. and Ph.D. degrees works under the direction of a Special Committee composed of two or three members of the faculty. For the degree of M.S. in Industrial and Labor Relations, one major and one minor subject, for the Ph.D. degree, one major and two minor subjects, must be selected from the following list. Each of the areas of specialization listed below except for Economic and Social Statistics and Industrial and Labor Problems, may be selected by the candidate for either degree as a major or minor subject. The specific courses to be taken by a candidate for a graduate degree will be arranged with the approval of the candidate's Special Committee.

Candidates are expected to remove any substantial deficiencies in their knowledge of the courses required of undergraduates of the School of Industrial and Labor Relations. Unless his Special Committee determines that the candidate has had adequate preparation in the subjects listed below, each candidate for the degree of Master of Science in Industrial and Labor Relations is required to complete at least one course in each of at least six of the subjects listed as available for a major. The candidate for the Master's degree will normally complete additional courses in the field of his major and minor subjects, and in such of the above and other fields as advised by his Special Committee. In addition, a thesis is required.

The candidate for the Ph.D., in addition to meeting the course work requirements for the Master's Degree, will complete such additional courses offered in the School and elsewhere in the University as required by his Special Committee and, as his program progresses, will spend an increasing proportion of his time in graduate seminars and in research relating to his thesis.

Graduate assistantships are awarded annually to a limited number of graduate students qualified to assist in the research and instruction carried on by the School.

APPROVED MAJOR AND MINOR SUBJECTS

Collective Bargaining, Mediation, and Arbitration
Human Relations in Industry

Industrial Education
Industrial and Labor Legislation and Social Security
Labor Market Economics and Analysis
Labor Union History, Organization, and Operation
Personnel Management
Economic and Social Statistics (available as a minor)
Industrial and Labor Problems (available as a minor for candidates majoring in fields outside Industrial and Labor Relations)

A student who proposes to take either a major or minor in Industrial and Labor Relations must select one of the above subjects.

As background for their independent research, candidates for the Ph.D. degree are expected to meet certain general requirements in these subjects as follows:

COLLECTIVE BARGAINING, MEDIATION, AND ARBITRATION. For a major in this subject, the candidate must show knowledge of: (1) the history, current developments, and issues in labor relations, collective bargaining practices and procedures; (2) the content of trade agreements in different types of industry; (3) state and federal legislation in the field of labor relations, collective bargaining, mediation, and arbitration; (4) leading cases in the field of labor law; (5) administrative agencies and their functions.

For a minor, (1), (3), and (5) are required.

HUMAN RELATIONS IN INDUSTRY. For a major in this subject, the candidate must present: (1) acquaintance with the fields basic in human and social behavior including biology, the physiology of the nervous system, and the psychology of the individual; (2) comprehensive knowledge of relevant areas in social psychology and cultural anthropology, especially the fundamentals of individual and group behavior and the nature of institutions; (3) familiarity with the principle human relations problems commonly found in industrial and labor relations and the bearing of these problems on other fields such as collective bargaining, labor organization, management organization, economics, and law; (4) knowledge of the problems involved in the relationship between industries and communities; (5) thorough knowledge of pertinent research techniques and methods employed in human relations problems; (6) knowledge of resources generally available in educational techniques and in community services that have bearing on human relations problems.

For a minor, (1), (2), and (3) are required.

INDUSTRIAL EDUCATION. For a major in this subject, the candidate must show: (1) comprehensive understanding of industrial and technical education programs in public institutions, private institutions, and industry; (2) ability to develop analyses for instructional purposes and prepare an educational or training program based upon analyses; (3) understanding of economic, social, and scientific factors which may modify industrial and technical education programs; (4) understanding of instructional methods and their application in learning situations; (5) ability to apply administrative and supervisory principles to industrial and technical education programs; (6) detailed knowledge of bibliographies and sources of information in this field.

For a minor, (1), (2), and (3) are required.

INDUSTRIAL AND LABOR LEGISLATION AND SOCIAL SECURITY. For a major in this subject, the candidate must show; (1) familiarity with the sources and nature of insecurity; (2) a comprehensive knowledge of the origin, development, constitutionality, and administration of legislation in such fields as labor relations,

minimum wage, hours, protection of women and children, discrimination and civil rights, health and safety, workmen's compensation, and social insurance; (3) a knowledge of the efforts of labor, industry, and the community to meet these problems on a voluntary basis; (4) familiarity with one special field of legislation, and the administrative and legal experience in that field; (5) knowledge of the past and current proposals for improving and extending legislation.

For a minor, (1), (2), and (5) are required.

LABOR MARKET ECONOMICS AND ANALYSIS. For a major in this subject, the candidate must show: (1) comprehensive knowledge of the factors governing labor supply and demand; (2) thorough understanding of basic economic processes, especially in relation to employment, national income, production, wages, prices, and profits; (3) qualified skill in analysing some specific labor market relationship such as manpower, labor mobility, wage determination, wage differentials, changes in wage structures, productivity, labor costs, or consumer incomes and expenditures; (4) competence in the use and application of quantitative methods; (5) knowledge of the history and the literature related to the subject.

For a minor, (1), (2), and (4) are required. When this subject is elected as a major, Labor Economics may not be elected as a minor.

LABOR UNION HISTORY, ORGANIZATION, AND MANAGEMENT. For a major in this subject, the candidate must present: (1) comprehensive knowledge of the history of the American labor movement and familiarity with the history of labor in other countries; (2) comprehensive knowledge of the organizational structure, problems, and management of American labor unions; (3) specific knowledge of the organizational structure, problems, and management of two labor unions in different types of industries; (4) understanding of the economic and social policies and practices of labor unions in their relation to union organization and management problems and techniques; (5) familiarity with the types of union leadership and rank and file behavior; (6) detailed knowledge of the bibliography and sources of information in this field.

For a minor, (1), (3), and (4) are required.

PERSONNEL MANAGEMENT. For a major in this subject, the candidate must present: (1) comprehensive knowledge of the general principles of personnel organization and operation; (2) knowledge of labor and industrial legislation and social security; (3) knowledge of labor union organization and activity and collective bargaining technique; (4) acquaintance with current methods and procedures in such fields as job rating and evaluation, systems of wage payment and administration, time and motion study, industrial training and education; (5) a knowledge of industrial psychology, especially testing, placement, and the fundamentals of individual and group behavior.

For a minor, (1), (2), and (3) are required.

ECONOMIC AND SOCIAL STATISTICS (Offered as a minor to graduate students in the field of Industrial and Labor Relations, as well as in other fields).

The candidate must show: (1) good command of the principles of statistical reasoning; (2) proficiency in the use of statistical methods and in the processing of statistical data; (3) qualified skill in the application of proper statistical tools of analysis to a specific topic in economics or social studies, including a thorough knowledge of statistical sources.

INDUSTRIAL AND LABOR PROBLEMS (Offered as a minor only to graduate students in field of study other than Industrial and Labor Relations.)

A candidate for an advanced degree must have a general understanding of the subject matter in the field of Industrial and Labor Relations. In order to prepare

for a minor in this field, the candidate will normally complete three to five courses or an aggregate of ten to fifteen hours of credit in accordance with a program approved by his special committee.

GRADUATE SEMINARS AND COURSES

Industrial and Labor Relations

101. *COLLECTIVE BARGAINING—ROLE OF GOVERNMENT IN LABOR RELATIONS.* Fall term.

Consideration of the "right to bargain" and the handling of controversy. Special attention is given to the developments under the National Labor Relations Act, Taft-Hartley Act, and under other major federal and state legislation. The principles and procedures of mediation and arbitration are studied and evaluated.

102. *COLLECTIVE BARGAINING—CONTRACTUAL RELATIONS.* Spring term.

Analysis of the substantive issues in labor-management relations and the techniques used in drafting and administering the collective agreement.

103. *BASIC STATISTICS.* Fall term.

For graduate students who have not taken a course in Statistics or who wish to take a refresher course. Emphasis will be placed on discussion of technical aspects of statistical analysis, and on initiative in selecting and applying statistical methods to individual research problems. The subjects ordinarily covered will include analysis of frequency distributions, time series (including index numbers), correlation analysis, and analysis of variance.

104. *HUMAN RELATIONS IN INDUSTRY.* Fall term.

An examination of the social structure, social processes, and human relations within the mine, mill, or factory unit. Attention will be given to the forces underlying the behavior of management and workers, the behavior patterns which control relationships, the nature of the adjustments made to changing industrial situations, and the personal and group relationships which characterize the activities of workers and management. The impact of social institutions, and the influence of social cleavages arising from racial and national origins of workers, upon the relationships within the production unit will be matters of investigation and discussion. There will also be a review of work going forward in this field at the principal research centers.

105. *PERSONALITY STUDY AND INTENSIVE INTERVIEWING.* Spring term.

For graduate students majoring in human relations or closely related fields, particularly those interested in research. Training will be given in methods of interviewing and in making of personality studies. One weekly seminar and one afternoon a week to be spent in field work.

106. *PROTECTIVE LABOR LEGISLATION.* Fall term.

A study of the historical origin, legislative development, administration, and problems related to the following types of legislation: fair employment practices, minimum wage and maximum hour laws, child labor, women employees, industrial health and safety, industrial housing. The obligations and responsibilities of unions and management are discussed. Reading and discussion of original documents and government reports, research reports, and projects form the basis of the course.

107. *SOCIAL SECURITY.* Spring term.

A study of the sources of insecurity inherent in modern industrial society and of the public and private programs designed to provide essential services or protection against reduction of income arising from industrial accident, sickness, old age, and unemployment. Attention is given to the basic principles of social insurance and the

influence of social insurance upon the operation of our economy. The administration and the interrelationships of private and public plans will also be discussed. The course is conducted as a seminar with readings of original documents, research reports, discussions, and occasional lectures providing the subject matter for consideration.

108 and 109. *LABOR MARKET ECONOMICS.* Spring and fall term.

Application of source materials and interpretation of wage and employment information. During each semester, the seminar will concentrate on the study of one specific topic within such areas as: wage trends, employment levels, wages as costs, wage-price relationships, occupational wage differences, occupational inter-plant and inter-area wage differences. This course is offered throughout the year, but students may be admitted either the first or second term.

110. *HISTORY AND GOVERNMENT OF LABOR UNIONS.* Fall term.

A detailed consideration, through research on specific international unions by individual students, of the relationship between the history and government of unions and collective bargaining, personnel management, government agencies and policies, and the institutional setting of problems in human relations.

111. *PERSONNEL ADMINISTRATION.* Spring term.

A seminar in personnel administration. Special studies will be made of organization of personnel departments: plans and procedures for employing, training, paying, rating, and separating employees; programs of employee safety and services; disciplinary actions, incentives, grievances; and other phases of personnel administration.

113. *ECONOMIC STATISTICS.* Spring term.

An analytical appraisal of statistical sources; methods, presentation, and interpretation in the field of industrial and labor relations. Each seminar will be given over to the study of one specific topic, such as: design of complex experiments and sampling in economics, advanced theory and analysis of index numbers, time series, etc.

130. *SUPERVISION OF INDUSTRIAL EDUCATION.* Fall term. Credit two hours.

The nature and purpose of supervision; fundamental principles of supervision; objectives; the planning and organization of a supervisory program; relationships of the supervisor to administrators and teachers; techniques and methods of supervision; the supervisor's responsibility for appraising the adequacy of equipment, materials and supplies; measurement and evaluation of student and teacher achievement.

131. *CURRENT PROBLEMS IN INDUSTRIAL EDUCATION.* Credit two hours. Spring term.

A graduate seminar dealing with problems of special importance in the field of industrial education at the present time. Problems in technical institute education, work-experience training for youth, integration of industrial and general education, training for semi-skilled occupations, area schools, and current legislation affecting industrial education will be discussed.

132. *ADMINISTRATION OF INDUSTRIAL EDUCATION.* Graduate; credit two hours. Spring term.

A study of administrative practices in industrial and technical schools. Discussion will include such aspects as the relationships of the industrial school administrator to other school officers; advisory committees and their functions; public relations, plant and equipment, budgetary procedures, staff personnel relations; teacher selection; student personnel procedures; and evening school organization and administration.

133. *TRAINING PROBLEMS IN BUSINESS AND INDUSTRY.* Spring term. Credit two hours.

A graduate seminar dealing with problems of current interest in training departments in business and industry. The topics discussed will include such problems as shifting emphases on kinds of programs and levels of workers to be served, patterns of administration and operation of training programs, recent developments in training techniques, and evaluation methods and procedures.

199. *SPECIAL STUDIES.*

Directed research in special problems.

Extension

THE Extension Division of the School offers educational services without college credit for labor, management, government, civic groups, and the general public throughout the State. Each registered student upon completing a course which he has regularly attended is awarded a Certificate of Attendance. Members of the School's faculty and qualified persons from management, organized labor, governmental agencies, and other schools and colleges constitute the extension teaching staff. Correspondence courses are not being offered.

To date, the Extension Division has arranged programs in eighteen cities of New York State. In each city in which an extension program has been established educational services have been arranged to meet local needs. Such programs have included series of public lectures, organized evening classes, and special classes organized for specific groups.

The general course offerings include subjects such as: Introduction to Industrial and Labor Relations; Human Relations in Industry; Psychology of Industrial and Labor Relations; Personnel Management; Parliamentary Law and Public Speaking; the Role of Law in Industrial and Labor Relations; Collective Bargaining; the Role of Foremen and Shop Stewards; History of the American Labor Movement; History of Labor Relations; Organized Labor, Management, and the Community; the Economics of Labor Relations; Accounting and Business Data in Labor-Management Relations; and the Economics of Employment and Unemployment.

Upon request of groups and organizations, the School has arranged specialized courses. Courses for management groups include: The Role of Supervisors; Management Seminars; Personnel Administration; and Human Relations in Industry. Courses for union groups include: The Role of Shop Stewards; Parliamentary Law; the Labor-Management Relations Act of 1947; and the History of the American Labor Movement.

In addition to lecture series and courses, the School conducts short institutes on various labor-management subjects.

Persons interested should address their inquiries to the Director of Extension, New York State School of Industrial and Labor Relations, Cornell University, Ithaca, New York.

Research and Information

The research program of the School covers not only matters of a current informational nature arising largely from specific inquiries on the part of government, labor, and management, but also embraces long-range projects. The research activities of the School's staff are coordinated through the office of the Research Director. Cooperation with public and non-public agencies in this field is planned. Moreover, through thorough planning of graduate theses topics, an integrated program of research is being developed cooperatively by the School and other divisions of the University. This activity, supplemented by co-ordination with the research programs of other universities and government agencies, is proving helpful in the establishment of a comprehensive research program. A series of extension and research bulletins is planned as a means of making available information and research pertaining to industrial and labor relations.

In October 1947, the School issued the first number of the *Industrial and Labor Relations Review,* a quarterly, non-partisan journal, dedicated to the improvement of industrial and labor relations. The *Review* provides valuable service to all persons engaged in industrial and labor relations; labor and management representatives and research or educational directors; social scientists, economists, political scientists; lawyers and teachers of law; industrial and social psychologists; public administrators. Each issue contains a number of original articles on industrial and labor relations developments, a comprehensive listing of recent publications, reviews of books and documents, research reports, and news notes.

Requirements in Military Training and Physical Training

MILITARY SCIENCE AND TACTICS

THIS department conducts a basic course and an advanced course in Military Science and Tactics. The University requires most undergraduate students who are able-bodied American citizens to take the two-year course in their first four terms. (See page 10). This course consists of instruction in leadership, dismounted drill, rifle marksmanship, evolution of warfare, world military situation, map reading and aerial photography, and other subjects.

The advanced course is an elective and appeals to those who are aware of the country's need for specially trained men in its reserve army, and those potential leaders who desire a fundamental training in military leadership. Courses are conducted in Field Artillery, Ordnance, Signal Corps, Quartermaster Corps, and Air Force. Upon completion of the course the student is qualified for a commission as a Second Lieutenant in the Officers' Reserve Corps of the Army or Air Force. In addition to his uniform, the student receives approximately $430 from the Government while taking the advanced course. Most World War II veterans are eligible without taking the basic course, and nearly all basic-course graduates are eligible. Opportunities are afforded for direct appointment as Second Lieutenants in the Regular Army or Air Force.

1. *BASIC COURSE.* Required. Throughout the year. The complete course covers two years. Three hours a week, M T W Th or F 1:40–4:30. Barton.

2. *ADVANCED COURSE.* Elective. Throughout the year. The complete course covers two years. Credit three hours a term. Five hours a week. Barton.

Further details may be obtained in the Announcement of the Department of Military Science and Tactics, or at Barton Hall.

NAVAL SCIENCE

The Department of Naval Science offers an integrated four-year course which normally requires three hours a week plus certain labo-

ratory periods. Summer cruises or tours of duty at shore establishments are also required.

Completion of the first two years of Naval Science courses either as a Regular or a Contract student in the NROTC fulfills the University requirment for military training. Contract students, in their last two years, receive uniforms and approximately $480 from the Government. Regular trainees, who are selected by the Navy Department before admission to the University, receive free tuition, fees, books, uniforms, and retainer pay at the rate of $600 a year for four years. Upon completion of the four-year course, the Contract student is qualified for a commission as Ensign in the Naval Reserve or Second Lieutenant in the Marine Corps Reserve. The Regular trainee is qualified for a commission as Ensign in the Regular Navy, or as Second Lieutenant in the Marine Corps. When the needs of the Navy permit, commissions in the Regular Navy and Marine Corps may also be offered to the Contract students on graduation.

Students with the necessary preparation may fulfill the requirements of the NROTC program and also qualify for a degree from the School of Industrial and Labor Relations, if they are careful in the selection of courses. Such students must meet all of the regular requirements for graduation from the School as well as those prescribed by the Bureau of Naval Personnel.

PHYSICAL TRAINING: MEN

(Students who have been discharged from the Armed Forces are exempted from this requirement.)

All undergraduate men (with the exception of those specified above) must pursue four terms of work, three hours a week, in Physical Training. Ordinarily, this requirement must be completed in the first two years of residence; postponements are allowed only by consent of the University Faculty Committee on Military Science and Physical Training.

Exemption from this requirement may be made by the Committee designated above, when it is recommended by the medical office or when unusual conditions of age, residence, or outside responsibilities require it.

For students entering with advanced standing, the number of terms of Physical Training required is to be reduced by the number of terms which the student has satisfactorily completed (whether or not Physical Training was included in his program) in a college of recognized standing.

CORNELL UNIVERSITY OFFICIAL PUBLICATION

The issues of this publication are designed to give prospective students and other persons information about Cornell University. No charge is made except for the *Directory of Staff,* the *Directory of Students,* and *A Book of Pictures.*

The prospective student should have a copy of *General Information* and a copy of one or more of the following Announcements:

Graduate School, Medical College, Cornell University-New York Hospital School of Nursing, Law School, College of Arts and Sciences, College of Architecture, College of Engineering, School of Business and Public Administration, New York State College of Agriculture, Two-Year Courses in Agriculture, Farm Study Courses, New York State School of Industrial and Labor Relations, New York State College of Home Economics, Department of Hotel Administration, New York State Veterinary College, School of Nutrition, School of Education, Summer Session, Announcement of the Department of Military Science and Tactics, Annual Report of the President.

Directory of Staff is priced at 25 cents, postpaid; the *Directory of Students* at 50 cents, postpaid. *A Book of Pictures* is priced at 50 cents, postpaid.

Correspondence regarding these publications should be addressed to

CORNELL UNIVERSITY OFFICIAL PUBLICATION
ADMINISTRATION BUILDING, ITHACA, NEW YORK

PHYSICAL EDUCATION: WOMEN

(Students who have been discharged from the Armed Forces are exempted from this requirement.)

All undergraduate women (with the exception of those specified above) must complete this requirement in the first two years of residence, by taking Physical Education 6 and 7. Required of all Freshmen: fundamentals and rhythmics. Three periods a week.

Other activities included in this program: archery, badminton, baseball, basketball, bowling, canoeing, folk and square dancing, field hockey, golf, individual gymnastics, modern dance, outing, (including skiing, skating, hiking, riding), riflery, soccer, tennis, and volleyball. For further information, see Bulletin of the Department of Physical Education for Women.