fall, winter, spring, summer. variable credit. may reenroll for a maximum of 10 credits. approval of department.

idc. the impact of animal resource management upon the world's developing nations
for course description, see interdisciplinary courses.

850. topics in dairy science
fall, winter, spring. variable credit. may reenroll for credit. approval of department. topics from breeding, management, nutrition, or physiology, changing from term to term to include recent technical advances.

899. research
fall, winter, spring, summer. variable credit. approval of department.

925. advanced ruminant nutrition
fall of even-numbered years. 4(4-0)
bc 422, fsl 501 or approval of department. microbiology, physiology and biochemistry of ruminant digestion and the absorption and metabolism of rumen fermentation products.

945. physiology of mammalian reproduction
winter. 4(4-0) dbr 445 or fsl 445 or approval of department. interdepartmental with the department of physiology. chemistry and biosynthesis of reproductive hormones. gonadal, hypothalamic and pituitary development of reproductive potential. ovulation, fertilization, implantation and placenta tion will be studied. relationships of concepts, terms and corpus luteum, parturition.

999. research
fall, winter, spring, summer. variable credit. approval of department.

earth science
see geology

economics

college of business

courses are classified as follows:

applied welfare economics--410.
labor economics and industrial relations--335, 435, 461.
money and banking--318, 330, 470.
international economics--427.
public finance--406, 497, 498.
price and value theory--324, 325, 426.
income and employment theory--320, 451, 470.
history of economic thought--421, 425.
industrial organization and control--444, 445.
economic development, regional studies, and comparative economics systems--430, 431, 434.

200. introduction to economics
fall, winter, spring, summer. 4(4-0)
open to freshmen. students may begin sequence with either ec 200 or ec 201. problem of unemployment, meaning and determination of national income, the multiplier, the accelerator, fiscal policy, deficit spending, monetary policy, banks, creation of money, international aspects of the employment problems.

201. introduction to economics
fall, winter, spring, summer. 4(4-0)
open to freshmen. students may begin sequence with either ec 200 or ec 201. problem of resource allocation, price determination (demand, supply, applications to agricultural policy, diminishing returns, behavior of the firm (determination of quantity of output, hiring of factors), aspects of international trade.

210. fundamentals of economics
fall, winter. 4(4-0) mth 215 or mth 228, or concurrently. students may not earn credit in ec 210 if they have credit in either ec 200 or ec 201. introductory course in economic theory, employing mathematics, when useful, as a tool analysis. covers consumer and business behavior, markets and the price system, income distribution, and elements of employment theory.

idc. introduction to latin america
for course description, see interdisciplinary courses.

251h. households, firms and markets
fall. 5(5-0) honors college students. microeconomic theory and its applications to analysis and policy. substitutes for ec 201, ec 324, and ec 325.

252h. aggregative economics and public policy
winter. 5(5-0) honors college students. theory of national income and its application to analysis and policy. substitutes for ec 200, ec 320, and ec 321.

305. industrial relations and trade unionism
fall, winter, spring, summer. 5(5-0)
development, aims, structure, and functions of labor and employer organizations. their relation to economic, political, and legal institutions and their impact on society. primary issues in collective bargaining.

315. money, credit and banking
fall, winter, spring, summer. 4(4-0) ec 200 or ec 210. commercial banking and the money supply. the federal reserve system, the treasury, and other financial institutions. sources and uses of funds in the financial market.

320. macroeconomics
fall, winter, spring, summer. 3(3-0)
measurement of economic activity. determination of equilibrium aggregate output and the theory of underemployment equilibrium. role of consumption, investment, government and foreign sectors in determining national income.

321. macroeconomics
fall, winter, spring, summer. 3(3-0) ec 200 and ec 201 or ec 210.
expansion of role of monetary factors in macroeconomic theory. theories of economic growth and cycles. study of macroeconomic problems of inflation, unemployment, and other current policy problems.

324. microeconomics
fall, winter, spring, summer. 3(3-0) ec 200 and ec 201, or ec 210. theory of production and cost. theory of the firm under varying market structures.

325. microeconomics
fall, winter, spring, summer. 3(3-0) ec 200 and ec 201, or ec 210, and ec 324. consumer choice and theory of demand. theory of distribution and factor rewards. welfare economics and general equilibrium theory.

330. investments and security markets
fall, spring. 3(3-0) 200 or 210, juniors. the stock market; principles of investment; analysis of selected industries and corporations; regulation by the securities and exchange commission.

337. american social and economic history: foundations
winter. 4(4-0) interdisciplinary with and administered by the department of history. multiple sources of economic growth in economic, social and political change, education, science and technology, political action, and other factors, mid-19th century.

338. american social and economic history: modern trends
spring. 4(4-0) interdisciplinary with and administered by the department of history. urbanization, origins and implications of large-scale organizations in business and other sectors of society, and sources of economic growth since mid-19th century.

361. economic development of asia
fall. 3(3-0) 200 and 201 or 210.
population and resources; comparison of three economic systems; comminism in china, free enterprise in japan and socialism in india; the role of japan in regional trade and development.

362. economic development of latin america
winter. 3(3-0) 200 and 201 or 210.
concentration of political and economic power as related to income distribution, tax structures, agrarian reform, inflation, trade, exchange rates, integration, population and employment policy.

363. economic development of tropical africa
spring. 3(3-0) ec 200 and ec 201 or ec 210. interdisciplinary with public affairs management.
african economic development in historical perspective. analysis of contemporary economic development problems faced by tropical african countries. alternative strategies for african economic development.

371a. european economic history to 1800
fall. 4(4-0) interdisciplinary with and administered by the department of history. economic history of medieval and early modern europe stressing the nature of agrarian societies, the growth of cities, the divergence of the european economies, and the industrial revolution in england.

371b. european economic history after 1800
winter. 4(4-0) interdisciplinary with and administered by the department of history. the industrialization of europe stressing urbanization, national rivalry, problems of the maturation of capitalist institutions, and the social and ecological impact of economic growth in the twentieth century.
400. Independent Study  
Fall, Winter, Spring, Summer. 1 to 4 credits. Seniors or approval of department. Research and reading course for students interested in doing independent work in economics.

406. Public Expenditure: Theory and Policy  
Fall, Spring. 4(4-0) EC 201 or EC 210. Interdepartmental with Public Affairs Management. Expenditure theory; objectives and rationale of government activity in the market system; efficiency criteria in government decision-making; planning-programming-budgeting systems and cost-benefit analysis.

407. Public Revenues  
Winter. 4(4-0) EC 201 or EC 210. Principles and theory of the distribution of tax burdens and the incidence of taxation. Income, sales, property, and other major revenue sources.

408. State and Local Finance  
Spring. 4(4-0) Juniors. Fiscal problems at the state and local levels of government, including revenues, expenditures, borrowing, and intergovernmental fiscal relations.

410. Medical Economics  
Spring. 3(3-0) EC 200, EC 201, or approval of department. Interdepartmental with the Department of Urban and Metropolitan Studies. Demand, supply and economic efficiency in the markets for health services. Demand for medical care, organization forms, methods of payment, utilization and cost, and public policy for health care.

412. The Economics of Poverty  
(300-400 Winter. 3(3-0) EC 200, EC 201. Interdepartmental with the Department of Urban and Metropolitan Studies. Theory of the distribution of income and wealth. Concepts and measurement of welfare. Definitions of poverty. Effects of public and private programs on the poor.

413. Urban Economics  
(300-400) Fall. 4(4-0) EC 200, EC 201. Interdepartmental with the Department of Urban and Metropolitan Studies. Location theory and urban development. Economics of city size and urban-suburban conflict. Economic aspects of certain community problems like migration, welfare and poverty. Strategies for urban development.

417. Land Economics  
Fall. Spring. 4(4-0) Interdepartmental with the Department of Resource Development, Public Affairs Management and Food Systems Economics and Management and administered by the Department of Resource Development. Factors affecting man's economic use of land and space resources. Input-output relationships, development, investment, and enterprise location decisions. Land markets; property rights, area planning, zoning and land use controls.

421. Economic Thought I  
Fall, Summer. 4(4-0) EC 200 and EC 201, or EC 210. Forerunners of classical economics. Development of classical economic thought from Adam Smith to J. S. Mill. The socialist reaction.

422. Economic Thought II  
Winter, Spring. 4(4-0) EC 200 and EC 201, or EC 210. The decline of classical economics and the rise of marginalist value and distribution theory. Marxism and institutionalism.

425. Introductory Mathematical Economics  
Spring. 3(3-0) EC 320, EC 324; MTH 214. Mathematical analysis of production, cost, and consumer choice. Mathematical models of aggregates and general equilibrium economic systems.

427. International Trade and Finance  
Fall, Winter, Spring. 3(3-0) EC 200 and EC 210, or EC 210. Theory of comparative advantage. Tariffs, quotas, and customs unions. Mechanism of balance of payments adjustments. Exchange rate determination and international financial relationships.

430. Stagnation and Development in Emerging Societies  
Winter, Summer. 4(4-0) EC 200 and EC 201, or EC 210. Obstacles to economic growth, theories of economic development, reorganizing agriculture and industry; problems in mobilizing the economy to accommodate new productive techniques; population problems.

431. Principal Issues in Promoting Economic Development  
Spring. 3(3-0) EC 430. Structural change and growth, capital formation and investment criteria; financing development; foreign trade and finance in development; government and planning.

434. Comparative Economic Systems  
Fall, Winter. Spring. 4(4-0) EC 200 and EC 201, or EC 210. Characteristics and functions of economic systems. Analysis of alternative patterns of economic control, planning and market structure. Experiences under capitalism, socialism and mixed economies. Consideration of their theories and philosophies.

440. Radical Political Economy  
Spring. 3(3-0) EC 200 and EC 201, or EC 210, or EC 251H and EC 252H. Development and contemporary characteristics of capitalism from Marxist-radical perspective. Historical materialist analysis. Critical critique of modern economics. Relationship of inequality, racism, alienation and other problems to the structure of capitalism.

444. Private Enterprise and Public Policy  
Fall, Winter, Spring, Summer. 3(3-0) EC 201 or EC 210. Competition and monopoly in the American economy. Problems of antitrust.

445. Economics of Regulated Industries  
Winter. 4(4-0) EC 444. Government policy and role of competition in the public utility and transportation industries.

451. Methods of Economic Research and Forecasting  
Spring. 4(4-0) EC 320 and EC 324, STT 317. Research design, testing of economic hypotheses, elementary methods of projection, forecasting, estimation, and introduction to econometrics.

453. Women and Work: Issues and Policy Analysis  
Winter. 3(3-0) PAM 201 or EC 206 or EC 201 or approval of department. Interdepartmental with and administered by Public Affairs Management. Quantitative and quality of labor force participation by women, current status and past trends. Issues analyzed include differential earnings and occupations of men and women, employment discrimination and labor legislation.

455. Public Policy and Labor Relations  
Fall, Winter, Spring. 3(3-0) EC 205. Evolution of public policy concerning trade unions and collective bargaining. Causes and effects of labor-management disputes; public and private methods and agencies for dispute settlement.

456. Economics of Social Security  
Spring. 3(3-0) EC 305 or Seniors. Problems of unemployment, old age, and medical care from standpoint of economic theory, political philosophy, and our changing economic and social structure. Workmen's Compensation Law, Railroad Retirement Act, Civil Service Retirement Act, and Social Security Act.

457. Manpower Economics  
Fall, Winter, Summer. 5(5-0) EC 200 and EC 201, or EC 210. Leading theories explaining wage determination, wage differentials and trends in wage structure. Labor force composition, distribution of unemployment, labor mobility, and manpower utilization. Data sources and forecasting methods.

460. Regional Economics  
Winter. 4(4-0) RD 417 or EC 324 or PSM 401. Interdepartmental with the Department of Resource Development, Public Affairs Management and Food Systems Economics and Management and administered by the Department of Resource Development. Forces affecting location decisions of firms, households and governments. Applications to agricultural, industrial, and regional development.

461. Regional Economics Laboratory  
Spring. 1(0-2) RD 460 and approval of department. Interdepartmental with the Department of Resource Development, Public Affairs Management and Food Systems Management. Administered by the Department of Resource Development. Evaluation and use of analytical models designed to solve regional economic problems.

463. Economics of Urban Education  
Spring. 3(3-0) EC 201 or EC 210. Interdepartmental with and administered by the Department of Urban and Metropolitan Studies. Political economy of urban schools. Education as a commodity, efficient production and distribution, supply and demand for education, financing education, planning education to meet job needs and social mobility.
470. Monetary Theory
Fall. 3(3-0) EC 321.
Relationship between money and interest rates, prices and output.

480. Mathematics for Economists
Fall. 5(5-0) MTH 113, graduate status in either economics, agricultural economics or College of Business, or approval of department. Interdepartmental with and administered by the Department of Mathematics.

500. Economic Analysis I
Fall, Winter. 4(4-0) EC 324.
Consumption, exchange and production.

501. Economic Analysis II
Winter, Spring. 4(4-0) EC 800.
The Firm. Market behavior and price formation (competition, monopoly and mixed cases). Distribution.

502. Economic Analysis III
Spring, Summer. 4(4-0)
Comparative statics analysis of macroeconomic problems.

1DC. Seminar in Industrial Relations
For course description, see Interdisciplinary Courses.

806A. Public Expenditures
Fall. 3(3-0) Approval of department.

806B. Public Revenues
Winter. 3(3-0) Approval of department.
Theory of taxation. Incidence and economic effects, especially on income and wealth redistribution. Institutional and policy analysis of the U.S. federal tax system.

806C. State and Local Public Finance
Spring. 3(3-0) Approval of department.
State and local expenditure systems in theory and practice, tax and nontax revenues; intergovernmental fiscal relationships; the fiscal problems of metropolitan governments.

810. Economics of Public Choice
Winter. 3(3-0) Approval of department. Interdepartmental with the departments of Agricultural Economics and Resource Development and administered by the Department of Agricultural Economics.
Economics of alternative institutions for collective action. Emphasis on property rights and natural resources. Public goods, externalities, nonmarketable change, commonwealth, income and power distribution, grants, welfare criteria and market failure.

811. Public Program Analysis
Spring. Summer of odd-numbered years. 3(3-0) FFM 416 or EC 324 or approval of department. Interdepartmental with the departments of Resource Development and Agricultural Economics and administered by the Department of Agricultural Economics.
Application of benefit-cost analysis to public programs of resources development. Issues and case studies in budgeting, investment criteria, pricing, externalities, and coordination.

812A. Microeconomics I: Choice and Exchange
Fall. 3(3-0) EC 324, EC 325, EC 480 or MTH 215 or concurrently.
Consumption exchange, the axiomatics of choices, involving time, introduction to welfare.

812B. Microeconomics II: Production and Distribution
Winter. 3(3-0) EC 812A.
Production—variable proportions, the multi-product firm, programming analysis. Distribution—the micro theory.

812C. Microeconomics III: The Firm and Market
Spring. 3(3-0) EC 812B.
Theories of the firm. Market behavior—perfect and imperfect markets. Game theory.

813A. Macroeconomics I: Comparative Statics
Fall. 3(3-0) EC 320, EC 321; EC 480 or MTH 215 or concurrently.
Macro models and macro function; the interaction of macro markets.

813B. Macroeconomics II: Dynamics
Winter. 3(3-0) EC 813A.
Stochastic and dynamic models. Growth and technical change. The macro theory of distribution.

813C. General Equilibrium and Welfare
Spring. 3(3-0) EC 813B; EC 812C or concurrently.
The disaggregated general equilibrium system. Input-output economics. Welfare.

815. Labor Force Behavior
Spring, 4(4-0) LIR 809, EC 457 or approval of department. Interdepartmental with and administered by the School of Labor and Industrial Relations.
Theoretical and empirical analysis of factors affecting labor force participation rates, unemployment levels, employment distribution, hours of work, and labor mobility. Concepts and measurement methods.

818A. Monetary Theory
Fall. 3(3-0) EC 812C, EC 813C, and EC 835 and approval of department.
Monetary and interest theories.

818B. The Theory of Monetary Policy
Winter. 3(3-0) EC 818A or approval of department.
Theories of the transmission of monetary policy to output, employment and prices.

818C. Problems in Monetary Policy
Spring. 3(3-0) EC 818B.
Goals and techniques of monetary policy.

821A. Competition and Monopoly in American Industry
Fall. 3(3-0) Approval of department.
Examination of structure, behavior, and performance in industries.

821B. Government Policy Toward Private Enterprise
Winter. 3(3-0) Approval of department.
Evolution of government policy with respect to such problems as conspiracy, monopoly, mergers, unfair practices, and discrimination. Economic and legal appraisal of policy alternatives.

821C. Problems Related to Regulated Industries
Spring. 3(3-0) Approval of department.
Departures from market competition as a policy norm, as in public utilities and transportation.

826A. Theory of International Trade
Fall. 3(3-0) EC 427 or approval of department.
Classical and modern theories of international trade. Application of modern techniques of economic analysis to international trade theory.

826B. Theory of International Trade Policy
Winter of even-numbered years. 3(3-0) EC 826A.
Various means by which a government may influence the volume, character, and direction of its foreign commerce. In this connection an analysis is made of the theory of the tariff, the subsidy, exchange control, and quotas. Emphasis on the economic impact of trade controls upon a nation and the world.

826C. International Exchanges and Capital Flows
Spring of even-numbered years. 3(3-0) EC 826B.
Theory of exchange rates and international money markets especially with reference to other than current account items in balances of payments. Analysis of sources, causes, effects of capital flows with developing economies considered as a special case.

831. Mathematical Economics I
Fall of even-numbered years. 3(3-0) EC 812; MTH 214, MTH 334.

832. Mathematical Economics II
Winter of odd-numbered years. 3(3-0) EC 813, MTH 215, MTH 334.
Mathematical models of growth and fluctuations dealing with macroeconomics, monetary theory, fiscal policy. The cobweb, static and dynamic multipliers, multiplier-accelerator models, trade cycle models. Relations among stocks, flows and time lags.

833. Mathematical Programming
Spring. 3(3-0) EC 880; or EC 812A; MTH 334. Interdepartmental with the departments of Agricultural Economics, and Statistics and Probability and administered by the Department of Agricultural Economics.
Linear programming. Theory of linear economic models. Topics in nonlinear programming.
855. The Emergence of Commerical Trade and Finance during the 16th and 17th centuries.

855A. History of Economic Thought: Classical
Fall, 3-3-0
Early thought, mercantilism, physiocracy, and classical economics.

855B. History of Economic Thought: Heterodox
Winter, 3-3-0
Historicism, socialism, and institutionalism.

855C. History of Economic Thought: Modern
Spring, 3-3-0
Development of marginalism, general equilibrium theory, employment theory, and mathematical economics.

856. The Development of Economic Institutions
Fall, 3-3-0; EC 430 or approval of department.

857. Wage Theory
Fall, 3-3-0; EC 320, EC 324, or approval of department. Interdepartmental with the Department of Labor and Industrial Relations. Advanced analysis of theories of wage determination, labor market research, economic effects of collective bargaining upon the national wage structure, output, employment, distribution of national income, the price level; nature and effects of government wage policies.

858. Industrial Relations
Winter, 3-3-0; EC 305 or approval of department. Open to graduate students in economics and related fields such as labor and industrial relations, psychology, sociology, anthropology, political science, business, and history. Interdepartmental with and administered by the School of Labor and Industrial Relations. Problems and issues in the administration and negotiation of collective bargaining agreements; includes both economic and noneconomic aspects of industrial relations policies and practices.

859. The Economics of Secular Change
Winter, 3-3-0; EC 320, EC 324, or approval of department.
Empirical studies of long-run economic trends and a consideration of alternative hypotheses explaining these trends including classical Marxism, Harrod-Domar, and other general theories of economic development. Population growth, technological change, capital formation, occupational distribution, urbanization, and international trade.

860. Economics of the Firm
Fall, Winter, Summer, 4-4-0; Graduate students in Business Administration. Not open to Economics majors. Analysis of the firm. Problems facing management; economizing in use of resources, optimal combinations of products, pricing, competitive forces in markets affecting the firm.

861. American Economy
Fall, Winter, Spring, 4-4-0;

862. Business and Public Policy
Winter, 4-4-0; EC 860 or approval of department. Not open to majors. Problem of government regulation of business. Economic models which relate to regulation. Regulatory legislation, regulatory bodies, and alternatives available.

863. Statistical Inference in Economics I
Fall, 3-3-0; EC 812A or EC 812C; EC 813C.

864. Statistical Inference in Economics II
Winter of odd-numbered years, 4-4-0; Interdepartmental with the Department of Management. Organization and technique in choice and implementation of economic (especially planning, programming) functions of public authority.

865. Organization and Control in the Political Economy: Institutions and Theory
Winter of even-numbered years, 4-4-0; Interdepartmental with the Department of Management. Organization and technique in choice and implementation of economic (especially planning, programming) functions of public authority.

866. Graduate Reading in Economics
Fall, Winter, Spring, Summer. Variable credit.

867. Research
Fall, Winter, Spring, Summer. Variable credit. Approval of department.

868. Selected Problems in Advanced Microeconomic Theory
Fall, Winter, Spring, Summer. 3-3-0;
May enroll for a maximum of 12 credits. EC 812A, EC 812B, EC 812C, EC 813C.
Advanced applications of economic methodology to the analysis of household and firm behavior, risk, uncertainty, and transactions costs.

869. Methodological Approaches to Research
Fall of even-numbered years, Summer of odd-numbered years, 3-3-0;
Two terms of graduate study in social science or approval of department. Interdepartmental with and administered by the Department of Agricultural Economics.
Selection, planning, and conduct of research. Alternative research approaches. Role of theory, beliefs, and valuations. Critical appraisal of research studies.

870. Industrial Organization and Public Policy Workshop
Fall, Winter, Spring. 3 to 16 credits. Approval of department.
Critical evaluation of research reports by staff and other students. Students writing doctoral dissertations in the appropriate areas are encouraged to participate in workshop and may do so while registered for EC 999.
EDUCATION

College of Education

101A. Exploring Elementary Teaching
Fall, Winter, Spring. 3-4 credits. PRECO.
Emphasis on the nature of teaching in the elementary school achieved through field experience while serving as a teacher aide in an elementary classroom. Concurrent lecture sessions focus on techniques of classroom management and operation.

124. Introduction to Careers in Vocational and Practical Arts Education
Opportunities in teaching agriculture, business, home economics or industrial education and in closely related fields; analysis of student's potentials for these fields.
A. Agriculture
Fall. 2 credits. Interdepartmental with Agriculture.
B. Industrial Arts
Winter and Fall of even-numbered years. 2 credits.

141A. General Industrial Arts
Winter and Fall of odd-numbered years. 3 credits. Approval of department.
Introductory experiences in all major areas of industrial arts. Organized under a comprehensive general shop organization similar to that utilized in the modern secondary school.

141B. General Woodwork
Winter and Fall of odd-numbered years. 3 credits. Approval of department.
Handwork, patternwork, carpentry, introductory machine work, finishing. Designed to exemplify, in both organization and equipment, desirable practices in today's secondary schools.

200. Individual and the School
Fall, Winter, Spring, Summer. 3 credits.
Sophomores. Must be admitted to a teacher education program. Major psychological factors in the school-learning-teaching situation; concepts in human development related to problems in the school situation; teacher's role in motivation, conceptual teaching, problem solving, and the development of emotional behavior, attitudes and values, learning of skills, retention and transfer; and measurement of student abilities and achievement.

214B. General Metalwork
Winter and Fall of odd-numbered years. 3 credits. Approval of department.
Bench metal, sheet metal, forging, welding, plating, casting, and machining. Designed to exemplify desirable facilities and courses organization for the modern secondary school.

241C. Industrial Arts Crafts
Winter and Fall of even-numbered years. 3 credits. Approval of department.
Typical crafts in outstanding public school programs of industrial arts. Work in plastics, leather, silver, aluminum, copper, metal enameling, lapidary, ceramics, and model making.

321A. Curriculum Methods and Materials—Elementary Education
Fall, Winter, Spring, Summer. 3 credits.
Juniors, ED 101A, ED 200. Must be taken concurrently with or prior to courses in ED 325 series.
Bases, scope, and sequence of curriculum in reading, language arts, and social studies; adaptation of principles to methods and materials of teaching in the elementary and middle school.

325A. Methods of Teaching Reading in the Elementary School
Fall, Winter, Spring, Summer. 3 credits.
Juniors, ED 200. Methods and materials of instruction of reading at elementary level, analysis of learning and teaching problems, and study of concrete materials and classroom attack. Consideration of practical bearings of research and progressive theory on current practice.

325B. Teaching of Language Arts in Elementary Grades
Fall, Winter, Spring. 3 credits.
Course to acquaint prospective elementary teachers with content material and methods in language arts for grades below the seventh. Students also gain an opportunity to acquire skills in manuscript and blackboard writing.

325C. Critical Reading and Children's Literature
Fall, Winter, Spring, Summer. 3 credits.
ED 200, Juniors.
Development of strategies for helping children to develop critical reading skills through literary experience.

325D. Teaching of Social Studies in Elementary Grades
Fall, Winter, Spring, Summer. 3 credits.
ED 200, Juniors; three terms of social science.
To help students develop understanding of philosophy and aims of social studies movement in elementary schools, and ability to further such aims through familiarity with a variety of materials, knowledge of social studies subject matter, and competence in using a variety of methods.

325E. Teaching of Mathematics in Elementary Grades
Fall, Winter, Spring, Summer. 3 credits.
ED 600, Juniors, MT 201.
Prepares methods and materials for teaching mathematics in the elementary school. Methods and techniques of presenting mathematics content meaningfully to elementary pupils will be illustrated.

325F. Teaching Science in the Elementary and Middle School
Fall, Winter, Spring, Summer. 3 credits.
ED 200, Juniors; three terms of Natural Science.
Extends the science education background of prospective elementary and middle school teachers. Emphasis is placed upon methods and materials for teaching science at the elementary and middle school levels.

325G. School Music Instrumental Methods
Fall, Winter, Spring, Summer. 3 credits.
ED 200, Juniors; three terms of instrumental music major. Instrumental instruction program at elementary level.

325H. School Music Vocal Methods
Fall, Winter, Spring, Summer. 3 credits.
ED 600, Juniors; three terms of instrumental music major. Vocal instruction program at elementary level.

327. Methods of Teaching—Secondary Common Elements
Fall, Winter, Spring, Summer. 3 credits.
ED 200; subject area methods course ED 327A to ED 327Y concurrently.
Instructional issues common to all subject areas. Selection of instructional techniques based on teacher values and beliefs systems, learner needs and characteristics, and sound educational principles and policies.

327A. Methods of Teaching—Secondary Subject Areas
Fall, Winter, Spring, Summer. 3 credits.
ED 200; subject area methods course ED 327A to ED 327Y concurrently.
Selection of instructional techniques based on teacher values and beliefs systems, learner needs and characteristics, and sound educational principles and policies.

A. Agriculture
Fall, Spring. 3 credits. ED 200, or concurrently.

B. Art
Fall, Winter, Spring. 3 credits. ED 200, ED 327 or concurrently.

C. Business and Distributive Education
Fall, Winter, Spring. 3 credits. ED 200, ED 327 or concurrently.