465. *Advertising and Social Responsibility*

Fall. 3(3-0) At least 10 credits in advertising courses or approval of department.

Assessing the impact of advertising on society, the culture and the economy. Study of ethical systems as basis for evaluating advertising. Self-regulation, laws and government regulation of advertising.

475. *Advertising Research*

Fall, Winter, Spring. 4(3-2) 205.

Nature, scope, and applications of research in advertising; theory, concept, and fact in the research process; dimensions of advertising research: data collection, field investigation, measurements of advertising and media audiences; evaluation of advertising messages.

499. *Individual Projects*

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

823. *Consumer Behavior*

Winter. 4(4-0) COM 820 or approval of department.

Examination of the emerging knowledge concerning consumer behavior. Emphasizes inquiry into the theory and process whereby consumer behavior is influenced by means of interpersonal and mass communication.

826. *Advertising Management*

(805.) Fall, Winter. 4(4-0)

Planning and formulating promotional strategy; establishing policies and making decisions to solve promotional problems of advertisers and agencies. Emphasis on case analysis.

846. *Management of Media Programs*

(810.) Spring. 4(3-1)

Planning, execution and control of media programs. Theory and techniques of media allocation, including use of marginal analysis, mathematical programming, simulation and game theory in formulation of media strategy.

850. *Problems in Public Relations*

(832.) Spring. 4(4-0) 327 or approval of department.

Public relations practice in the U.S. and abroad. Study of recent cases in public relations of corporations, associations, education, government and welfare organizations.

858. *Management of Advertising Information*

Spring. 3(2-2) 826.

Management of information for advertising planning, decision-making and control. Design of advertising information systems, decision to buy information, collection and analysis of information, data bank management.

865. *Advertising and Society*

(815.) Spring. 4(4-0)

Investigation of theory and scientific evidence relevant to the process and effect of advertising on individuals and on the socio-economic system. Critical examination of the social responsibilities of advertising.

870. *International Advertising*

(470.) Spring. 4(4-0) 826 or approval of department.

International advertising and promotion; formulation and implementation of international promotional strategies and policies; cases and problems from the viewpoint of advertisers and advertising agencies.

890. *Special Problems*

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

899. *Research*

Fall, Winter, Spring. Variable credit. Approval of department.

990. *Independent Study*

Fall, Winter, Spring, Summer. 3 to 12 credits. May re-enroll for a maximum of 12 credits. Approval of department.

Independent study of advanced theory, research and history of advertising thought.

AEROSPACE STUDIES A S

All University

041. *Corps Training*

Winter. 0(0-1) Approval of department.

Basic concepts of leadership and the role of discipline; leadership development through practical experience. Concurrent enrollment in an approved non-Aerospace Studies course is required.

110. *Organization of the U.S. Air Force*

Fall. 1(1-1)

The doctrine and mission of the U. S. Air Force; includes its history, organization, and how it is structured for mission accomplishment. Comparison of armed services mission relationships.

111. *U. S. Strategic Offensive and Defensive Forces*

Winter. 1(1-1) 110.

Comparison of the missions and functions of specific Air Force commands, including employment of contemporary aerospace equipment and systems, as well as naval strategic offensive forces and army ABM systems.

112. *U. S. General Purpose Forces*

Spring. 1(1-1) 111.

Tactical air forces. The mission, organization and function of the Air Force support commands and separate operating agencies as well as forces of other military branches.

210. *Aerospace Developments, Kitty Hawk Through World War II*

Fall. 1(1-1) 112.

Development of manned flight through World War II. Trace development of concepts of employment of aerospace forces. Investigate factors which prompted research and technological change.

212. *Aerospace Developments, Post-World War II to Present*

Spring. 1(1-1) PLS 160 or M C 220.

Aeronautical developments since World War II. Trace development of concepts of employment of aerospace forces. Investigate factors which have prompted research and technological change.

310. *National Security Forces Policy Formulation*

Fall. 3(3-1) 212.

Broad range of American civil-military relations and the environmental context in which defense policy is formulated. Impact of technological and international developments upon strategic preparedness.

312. *The Military and American Society*

Spring. 3(3-1) HST 307, PLS 365 or M C 323.

Role of the professional officer in a democratic society; socialization processes within the Armed Services; political, economic and social constraints upon the national defense structure.

410. *Concepts of Air Force Leadership*

Fall. 3(3-1) 312.

Military professionalism. Its meaning, foundations and responsibilities. Leadership theory, functions and practices.

411. *Military Justice and Introduction to U.S. Air Force Administration*

Winter. 3(3-1) 410.

Military justice and its application within the U.S. Air Force. Air Force administration.

412. *Concepts of Air Force Administration*

Spring. 3(3-1) 411.

Continuation of 411, examining the various aspects of aerospace administration. Last week: Final preparation for assumption of duties of an Air Force officer.

499. *Independent Study*

Fall, Winter, Spring. 1 to 3 credits. May re-enroll for a maximum of 6 credits. Juniors and approval of instructor.

Investigation of an aspect of aerospace activities of specific interest to the student and a faculty member.

AFRICAN LANGUAGES

See Linguistics and Oriental and African Languages

AGRICULTURAL ECONOMICS AEC

College of Agriculture and Natural Resources

803. *Development and Relevance of Agricultural Economics*

Fall. 3(3-0)

Emergence of agricultural economics. Problems leading to change. Values and beliefs related to public issues. Interaction between professionals and decision makers. Agricultural economics in Europe and in developing nations.

805. *Agricultural Production Economics I*

Fall. 4(4-0) FSM or PAM 340; not open to students with credit in FSM or PAM 401.

Economic principles of production. Industry supply and factor demand analysis. Management concepts and choice criteria. Interrelationship of production and consumption decisions. Welfare economics. Agricultural economics applications.

809. Institutions Behavior and Performance

Fall. 3(3-0) Approval of department.

Relationships among institutional structure, behavior, and performance. Concepts of behavioral sciences useful in public policy and program analysis emphasizing interactions of preferences, incentives and institutions.

810. Economics of Public Choice

Winter. 3(3-0) Approval of department. Interdepartmental with Resource Development and Economics Departments.

Economics of alternative institutions for collective action. Emphasis on property rights and natural resources. Public goods, externalities, non-marginal 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) FSM 401 or EC 324 or approval of department. Interdepartmental with the Economics and Resource Development Departments.

Application of benefit-cost analysis to public programs of resources development. Issues and case studies in budgeting, investment criteria, pricing, externalities, and coordination.

830. Data Generation and Analysis

(470.) Winter. 4(4-0) STT 421.

Organization of information systems in relation to economics of information. Use of published data and samples. Index numbers. Regression, hypothesis testing and decision making. Emphasis on social science applications.

831. Advanced Food Processing and Distribution Management

Fall, Spring. 4(4-0) May re-enroll for a maximum of 8 credits. Approval of department. Interdepartmental with and administered by the Department of Marketing and Transportation Administration.

Food industry adjustment to changing social, economic and internal company environment. Managerial principles and techniques applied to food processing and distribution. Student interaction with industry, labor and government representatives.

833. Mathematical Programming

Spring. 3(3-0) EC 800 or 812A, MTH 334. Interdepartmental with the Economics, and Statistics and Probability Departments.

Linear programming. Theory of linear economic models. Topics in nonlinear programming.

835. Introduction to Econometrics

Fall, Spring, Summer. 3(3-0) EC 325, STT 422. Interdepartmental with and administered by the Economics Department.

Specification, estimation and interpretation of economic models. Applications to empirical problems.

837. Applied Operations Research I

Spring. 4(4-0) MTH 113 or 228. Approval of department.

Use and interpretation of operations research techniques for problems encountered by agricultural economists. Emphasis on linear programming and its variations such as transportation models, network analysis, spatial equilibrium models.

838. Applied Operations Research II

Summer. 2(2-0) MTH 113 or 228, STT 422. Approval of department.

Use and interpretation of operations research techniques for problems encountered by agricultural economists. Emphasis on techniques such as Markov processes, dynamic programming cohort analysis, queuing, Monte-Carlo techniques, elementary simulation.

841. Industrial Organization of Agricultural Markets

Fall. 3(3-0) Approval of department.

Market organization and evaluation of performance. Pricing and market coordination problems. Group action in agricultural markets. Role of marketing in economic development.

843. Commodity Market Analysis

Winter. 3(3-0) STT 422 and FSM 401 or EC 325.

Economic forecasting in agricultural commodity markets, short run and long run. Futures markets, hedging, speculation. Plant location and size. Selected topics. Emphasis on techniques of use to firm manager.

851. Advanced Farm Management

Summer. 3(2-2) FSM 430 or approval of department.

Emphasizes identification, analysis, and methods of solving problems of farm organization and operation; new technology, specialization and scale. Farm case studies, role-playing, computer games and farm business simulation.

860. Rural Welfare and Development Policy

Spring. 3(3-0) Approval of department.

Analysis of policies and programs for U.S. rural economic and human development. Development strategies. Public decision processes. Growth and distribution of income and public services. Poverty and income maintenance.

861. Agricultural Trade Policies

Fall of odd-numbered years; Summer of even-numbered years. 3(3-0) FSM 430 or approval of department.

International trade in agricultural products, areas of competition, changes in comparative advantage, interrelationship of national and international policy, regional groupings, trade and economic development, current policy proposals.

862. Agriculture in Economic Development

Winter. 3(3-0) PAM 462 or approval of department.

Agricultural and industrial sector interactions in the development process. Theories and models of the agricultural development process. Transformation of agriculture in less-developed countries.

865. Rural Development Administration

Winter. 3(3-0) Approval of department.

Concepts and principles of development administration and their application in the analysis of the processes and structures through which rural development activities are formulated and implemented in less developed countries.

866. Public Institutions and Rural Development Administration

Spring. 3(3-0) Approval of department.

Application of administrative tools and techniques in organizing and evaluating public institutions. Analysis of institutional effectiveness in implementing rural programs in developed and developing countries. Cross-cultural considerations emphasized.

876. Statistical Inference in Economics I

Fall. 3(3-0) EC 812C or 801; STT 443 or 863; or approval of department. Interdepartmental with the Economics, and Statistics and Probability Departments and administered by the Economics Department.

Review and extension of single-equation regression models. Properties of least-squares estimators under alternative specifications. Problems of analyzing non-experimental data. Errors in variables, autoregressive and heteroscedastic models.

877. Statistical Inference in Economics II

Winter. 3(3-0) EC 876 or approval of department. Interdepartmental with the Economics, and Statistics and Probability Departments and administered by the Economics Department.

Specification interpretation and estimation of simultaneous equation models. Nonlinear models. Bayesian approach to estimation problems. Recent developments in econometrics.

878. Statistical Inference in Economics III

Spring. 3(3-0) EC 877 or approval of department. Interdepartmental with the Economics, and Statistics and Probability Departments and administered by the Economics Department.

Validation and application of dynamic econometric models. Bayesian approach to estimation problems. Recent developments in econometric methods and in applied econometric research.

882. Independent and Supervised Study

Fall, Winter, Spring, Summer. 1 to 12 credits. May re-enroll for a maximum of 12 credits. Approval of department.

Arranged seminars initiated by faculty or students; supervised readings; individual study of special problems.

899. Research

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

906. Agricultural Production Economics II

Winter. 4(4-0) 805 or FSM 401.

Resource allocation and efficiency in agriculture as related to management under conditions of both perfect and imperfect knowledge of price, institutional, technological and human change. Advanced topics.

941. Seminar in Food Systems Organization and Policy

Spring of odd-number years; Summer of even-numbered years. 3(3-0) Approval of department.

Alternative methods of organization and control of food systems. Policy and program analysis. Development and presentation of position papers.

960. Agricultural Policy in Developed Economies

Winter. 3(3-0) FSM 421 and one year of graduate work in social science or approval of department.

Sectoral interrelationships and the impact of economic policies relating to agriculture in advanced economies. Public decision processes. Current issues in food and fiber policy.

962. *Development Planning and Agricultural Sector Analysis*

Spring. 3(3-0) 862; one year of graduate study in agricultural economics or economics or approval of department.

Seminar in development planning with special reference to sectoral interrelationships. Agricultural sector analysis. Project preparation and appraisal.

972. *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 the Economics Department.

Selection, planning and conduct of research. Alternative research approaches. Role of theory, beliefs and valuations. Critical appraisal of research studies.

990C. *Mathematical Economics and Econometrics Workshop*

Fall, Winter, Spring. 3 to 16 credits. EC 812A, 832, or approval of department. Interdepartmental with and administered by the Economics 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 999.

999. *Research*

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

Food Systems Economics and Management — FSM

200. *Introduction to Food Systems Management*

Fall. 4(4-0).

Organization of modern industrialized food production and distribution systems. Problems faced by managers of firms in food systems. Application of economic and management principles in the solution of these problems.

330. *Food Production Management*

Fall. 3(3-0).

Description and analysis of problems faced by managers of input supply, farm, and packing and handling firms. Emphasis on planning, organization, adjustment to technological change, growth and personnel management.

335. *Food Processing and Distribution Management*

Winter. 3(3-0) 200 or MTA 300. Interdepartmental with and administered by the Marketing and Transportation Administration Department.

Analysis of problems faced in the food processing and distribution system. Includes functional interrelationships, consumer orientation and future development.

340. *Managerial Economics*

Spring. 3(3-0) EC 201. Interdepartmental with and administered by Public Affairs Management.

Production, consumption decisions and their interrelation. Pricing of market and non-market goods. Effects of monetary and fiscal policies. Applications to problems in food system or community management.

370. *Applied Statistics*

Winter. 3(3-0) Students may not receive credit in both FSM 370 and AEC 830. One course in statistics, one course in food systems economics and management or public affairs management. Interdepartmental with and administered by Public Affairs Management.

Interpretation and use of statistical results in decision making. Sampling, index numbers, tabular analysis, trend estimation, regression models, decision theory.

401. *Production Economics and Management*

(AEC 401.) Fall. 4(4-0) Not open to graduate students in Agricultural Economics, Economics or Resource Development. Interdepartmental with the Resource Development Department and Public Affairs Management.

Economic principles of production. Industry supply and factor demand analysis. Management concepts and choice criteria. Interrelationships of production and consumption decisions. Welfare economics. Examples drawn from agriculture.

412. *Financing the Food System*

(AEC 412.) Spring. 3(3-0) 200 or EC 201.

Capital, sources and requirements in the food system. Sources and terms of credit. Credit instruments. Interest rates. Credit policy issues. Principles of financial management and real estate appraisal.

417. *Land Economics*

Fall, Spring. 4(4-0) Interdepartmental with the Resource Development and Economics Departments and Public Affairs Management and administered by the Resource Development Department.

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. *Public Policy and the Food System*

Winter. 3(3-0) 200 or EC 201, PAM 320 recommended.

Policy issues identified and analyzed in relation to performance goals of society and groups within the food system. Emphasis on price and income policies and regulations affecting the food system.

422. *Food System Managers in the Community*

Spring. 3(3-0) 421, 430 or 439.

Examination of political and social issues affecting individual participants and businesses in the food sector.

430. *Advanced Food Production Management*

Fall. 3(3-0) 330.

Management principles and techniques applied to food production firms including farms, input suppliers, packers and handlers. Emphasis on planning, growth, finance and decision processes. Case studies and gaming.

439. *Advanced Food Processing and Distribution Management*

Fall. 3(3-0) 335. Interdepartmental with and administered by the Marketing and Transportation Administration Department.

Managerial principles and techniques applied to food processing and distribution. Emphasizes adjustment to changing social, economic and internal company environment. Student interaction with industry, labor and government representatives. Field trips, special projects.

443. *Group Action in Marketing*

(AEC 443.) Spring. 3(3-0) 200.

Characteristics, problems and strategies of cooperatives, unions, bargaining groups, trade associations and other voluntary organizations. Effects of group action on farmers, marketing firms and consumers. Legal restraints and facilitation of group action.

460. *Location Analysis*

Winter. 4(4-0) 417 or 401 or EC 324. Interdepartmental with the Resource Development and Economics Departments, and Public Affairs Management and administered by the Resource Development Department.

Forces affecting location decisions of firms, households and governments. Applications to agricultural, industrial, and regional developments.

462. *Agriculture and Rural Development in Developing Nations*

Fall. 3(3-0) PAM 201 or EC 201; PAM 260 recommended. Interdepartmental with Public Affairs Management and Agriculture.

Traditional agricultural systems and the incentive environment for economic growth in rural areas. Adjustment to technological, institutional and human change. Strategies for rapid agricultural transformation.

473. *Introduction to Systems Analysis*

Spring. 3(3-0) MTH 111. Interdepartmental with and administered by Public Affairs Management.

Principles of systems analysis applied to ecological, physical, economic and social phenomena. Case studies. Interpretation and design of systems models. Systems concepts in decision making.

480. *Independent and Supervised Study*

Fall, Winter, Spring, Summer. 1 to 9 credits. May re-enroll for a maximum of 9 credits. Approval of department.

Public Affairs Management — PAM

201. *Introduction to Community Economics*

Fall, Spring. 3(3-0)

Identification and analysis of problems faced by public decision makers in managing public revenues and services and governing private resource use. Impact of political and economic structures on resource use.

260. *World Food, Population and Poverty*

Winter. 3(3-0)

Description, analysis and alternative solutions of food, population and poverty problems, especially in relation to trade and aid programs. Special emphasis on problems of low income nations.

303. *Welfare, Health and Education Policy*

Fall. 3(3-0) 201 or EC 200.

Evaluation of selected welfare, health and education policies and alternatives. Role of public and private sectors. Impact of values, beliefs, costs, benefit distributions, political power and other factors on policy.

320. *Economic Policy Processes I*

Fall. 3(3-0) 201 or EC 201.

Analysis of processes by which public economic policy is established at various levels of government. Role of economic interests and pressures. Alternative processes for economic policy formulation. Case studies.

321. Economic Policy Processes II

Winter. 3(3-0) 320 or approval of department.

Continuation of 320 with emphasis on behavioral analysis and simulated participation in the process through case examples and problems.

340. Managerial Economics

Spring. 3(3-0) EC 201. Interdepartmental with Food Systems Economics and Management.

Production, consumption decisions and their interrelation. Pricing of market and non-market goods. Effects of monetary and fiscal policies. Applications to problems in food system or community management.

363. Economic Development of Tropical Africa

Spring. 3(3-0) EC 200 and 201, or 210. Interdepartmental with and administered by the Economics Department.

African economic development in historical perspective. Analysis of contemporary economic development problems faced by tropical African countries. Alternative strategies for African economic development.

370. Applied Statistics

Winter. 3(3-0) Students may not receive credit in both PAM 370 and AEC 830. One course in statistics, one course in food systems economics and management or public affairs management. Interdepartmental with Food Systems Economics and Management.

Interpretation and use of statistical results in decision making. Sampling index numbers, tabular analysis, trend estimation, regression models, decision theory.

401. Production Economics and Management

(AEC 401.) Fall. 4(4-0) Not open to graduate students in Agricultural Economics, Economics or Resource Development. Interdepartmental with the Resource Development Department and Food Systems Economics and Management and administered by Food Systems Economics and Management.

Economic principles of production. Industry supply and factor demand analysis. Management concepts and choice criteria. Interrelationships of production and consumption decisions. Welfare economics. Examples drawn from agriculture.

404. Social Accounts and Community Choice

Winter. 3(3-0) 303 or approval of department.

Social accounting as a framework for problem definition and measurement of policy effectiveness. Conceptualization of social accounts. Use of selected social indicators in policy formulation and decision making.

406. Public Expenditures: Theory and Policy

Fall, Spring. 4(4-0) EC 201 or 210. Interdepartmental with and administered by the Economics Department.

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.

417. Land Economics

Fall, Spring. 4(4-0) Interdepartmental with the Resource Development and Economics Departments and Food Systems Economics and Management and administered by the Resource Development Department.

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.

460. Location Analysis

Winter. 4(4-0) 417 or 401 or EC 324. Interdepartmental with the Resource Development and Economics Departments, and Food Systems Economics and Management and administered by the Resource Development Department.

Forces affecting location decisions of firms, households and governments. Applications to agricultural, industrial, and regional developments.

462. Agricultural and Rural Development in Developing Nations

(AEC 462.) Fall. 3(3-0) 201 or EC 201; PAM 260 recommended. Interdepartmental with Agriculture and Food Systems Economics and Management and administered by Food Systems Economics and Management.

Traditional agricultural systems and the incentive environment for economic growth in rural areas. Adjustment to technological, institutional and human change. Strategies for rapid agricultural transformation.

473. Introduction to Systems Analysis

Spring. 3(3-0) MTH 111. Interdepartmental with Food Systems Economics and Management.

Principles of systems analysis applied to ecological, physical, economic and social phenomena. Case studies. Interpretation and design of systems models. Systems concepts in decision making.

480. Independent and Supervised Study

Fall, Winter, Spring, Summer. 1 to 9 credits. May re-enroll for a maximum of 9 credits. Approval of department.

AGRICULTURAL ENGINEERING A E

College of Agriculture and Natural Resources

152. Introduction to Agricultural Engineering I

(252.) Fall. 1(1-0)

An introduction to the agricultural engineering profession with an examination of existing problems.

153. Introduction to Agricultural Engineering II

(253.) Winter. 1(1-0)

Communication techniques, library use, letter and technical report writing techniques as used in the agricultural engineering profession.

154. Introduction to Agricultural Engineering III

(254.) Spring. 1(1-0)

An analysis of the agricultural engineering profession with an examination of educational requirements for employment in various areas of the profession.

200. Computers and Information Processing in Agriculture and Natural Resources

Spring. 3(3-0)

Evaluation of the present and future role and application of electronic computers in the area of agriculture and natural resources.

202. Physical Principles of Mechanical Processes

Fall, Spring. 3(1-4)

Theory and skills in metallurgy, heat treating, cold metal, sheet metal, plumbing, arc and oxy-acetylene welding and machine operations.

239. Housing Conservation

Spring. 2(2-0)

Skills and techniques in conserving, repairing and remodeling existing housing. Structural components of housing and evaluation of housing structure.

243. Automotive and Recreational Engines

Spring. 3(3-0)

The principles and maintenance of engines used in automobiles and recreational vehicles. Fuels, lubricants and emission control. Basic engineering principles are developed in a manner that requires no prior technical training.

352. Physical Principles of Biological Processes

Fall. 3(3-0) MTH 215, PHY 289.

Basic scientific principles and engineering theory applied to biological systems and products.

353. Physical Principles of Plant Environment

Winter. 3(3-0) 352.

Physical processes and properties of the biosphere as related to engineering the plant environment.

354. Physical Principles of Animal Environment

Spring. 3(2-2) 352.

Interrelationship of environmental factors and physiological responses of animals for planning, design and control of optimum environmental systems.

355. Principles of Structures and Machines

Winter. 3(3-0) MMM 211.

Stress and deflection analysis of simple structures and machines. Estimation of loads and selection of materials. Course will be oriented towards applications in agricultural engineering.

402. Teaching Agricultural Mechanics

Winter, Spring. 5(2-6) Juniors.

Teaching theory and developing skills in agricultural mechanics in secondary and vocational schools. School and farm shop planning and management. Emphasis on equipment and material selection, metallurgy, metal work and welding.

425. Farmstead Materials Handling

Spring. 3(2-2) Juniors.

Systems and equipment for handling grain, hay, fertilizer, water and wastes on the farm. Systems design and evaluation.

IDC. Introduction to Meteorology

For course description, see Interdisciplinary Courses.

IDC. Introduction to Meteorology Laboratory

For course description, see Interdisciplinary Courses.

IDC. Microclimatology

For course description, see Interdisciplinary Courses.

437. Principles of Food Engineering

Winter. 5(5-0) 220.

Principles and use of electricity, steam, refrigeration and hydraulics in food plants. Emphasis will be placed on specialized processing equipment, their design features, materials of construction and automatic control.

444. Agricultural Production Machinery

Spring. 3(2-2).

Basic principles of agricultural machines. Selection, care and operation of agricultural machinery for obtaining optimum conditions for crop production.