Department of Food and Nutrition

Faculties

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Assistant Professors

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Introduction

The Department of Food and Nutrition was established as one of the departments in the first four-year College of Home Economics in Korea in 1963. Graduate level courses have been offered since 1972 and Doctoral program courses since 1979. The Research Institute of Food and Nutritional Sciences (RIFNS) was established in 1992 in response to the growing need for advanced research and integrated knowledge in the field of Food and Nutrition.

The department focuses on food and nutritional sciences, foodservice management, nutrition education, and diet therapy. The objective of the department is to raise the quality of life by improving the levels of human health and nutrition through research and practical application. The curriculum emphasizes basic and applied sciences concerning food science, nutrition, and foodservice management. This will develop the overall research planning and...
development of Food and Nutrition as a foundation of National Health.

Possible career choices for Food and Nutrition graduates include becoming a nutritionist in hospitals, employee feedings, schools, health-care centers, or food service contracted firms, a food company researcher in the fields of product development, product evaluation, or promotion and marketing, or a food service administrator for food franchises, hotels, promotion and publicity departments.

**Department Regulations**

**Entrance requirements**

Application form, two letters of recommendation and TOEFL scores or other equivalent scores such as TOEIC or TEPS (required from spring semester of 2000).

**Financial Assistance**

The graduate school offers financial assistance through teacher assistant jobs.

**a. Examination requirements**

**<Master's degree>**

Submission of a research proposal of each student’s thesis will be required in addition to an oral thesis defense.

**<Doctoral degree>**

Students in their fifth semester with at least 51 credits (including semesters and credits earned towards a Master’s degree) may apply to take their Doctoral comprehensive examinations. Applicants must submit an examination application along with a transcript. Students will select one subject from each of the three fields of study (Nutrition/Biochemistry, Food Science, and Food Service Management) for the comprehensive examinations, which consist of written and oral sections. Students must receive at least a 70% on all examinations to be eligible for graduation.

**<Master's-Doctoral degrees>**

Students pursuing their Master’s degree must take the corresponding Master’s examination. Students who plan to graduate with a Ph.D. degree must take the examination for the Doctoral degree.

**b. English Proficiency Examination**

All applicants must take the TOEFL or other equivalent English tests and score a minimum of 500 or equivalent scores.

**c. Course requirements**

**<Master's degree>**

At least 24 of the 30 credits required for the degree must be taken from the Department of Food and Nutrition. Remaining credits can be received from other departments, with the approval of either the department head or the student’s thesis advisor. At least two credits from seminar courses are required for a Master’s degree.

**<Doctoral degree>**

At least 45 credits (of the 60 required for Doctoral students, 54 for Master’s-Doctoral students) must be taken from the Department of Food and Nutrition. Remaining credits can be received from other departments, with the approval of either the department head or the student’s advisor. Doctoral students must take at least three credits from seminar courses (not counting seminar credits taken for a Master’s degree). Master’s-Doctoral
students must take at least four seminar credits.

Courses

IB 501 Statistics 3 credits
Basic concepts and application of statistical methods. Emphasis on design and analysis of biological, medical, and related experimentation.

IB 502, 503 Research Methods in Food and Nutrition I, II Each 3 credits
Principles and methodologies of research related to food and nutrition.

IB 505 Food Science 3 credits
The physical, chemical, and functional properties of food components and their application in the food system.

IB 512 Physical Chemistry 3 credits
Basic concepts of physical chemistry relevant to Biological Science students.

IB 514 Topics in Food Microbiology 3 credits
Studies of major groups of microorganisms important to the food industry with emphasis on ecological, physiological, and public health aspects.

IB 521, 723 Analytical Methods in Food and Nutrition I, II Each 3 credits
Application and evaluation of analytical methods for foods and nutrition research.

IB 522, 724 Topics in Experimental Foods I, II Each 3 credits
Theory and methods for experimental approaches to food product development.

IB 523, 526 Methods in Assessment of Food Quality I, II Each 3 credits
Studies of objective and sensory evaluation of quality and acceptability of food.

IB 524, 825 Readings in Foods I, II Each 3 credits
Advanced studies of recent research in food science.

IB 530, 760 Methods in Nutrition Counseling I, II Each 3 credits
Skill development in nutrition counseling and nutrition related law for professional nutritionists.

IB 532, 732 Readings in Nutrition I, II Each 3 credits
Discussions on recent nutrition topics.

IB 621, 721 Methods in Foods Research I, II Each 3 credits
Principles and techniques of food development and food science research.

IB 622, 722 Methods in Nutrition Research I, II Each 3 credits
Principles and methodologies of recent research in nutrition.

IB 623 Advanced Food Preservation 3 credits
Principles of various food preservation methods. Physiochemical and nutritional changes related to preservation methods.

IB 624 Cultural Aspects of Foods 3 credits
Regional, ethical, and religious influences on food consumption patterns. Laboratory experience with food samples from several cultures.

IB 625 Fermentology 3 credits
Lecture on the chemical process of fermentation and general topics in fermented foods.

IB 626, 627 Food History I, II Each 3 credits
Discussions and lectures on the historical
development of foods.

**IB 631 Vitamins in Nutrition 3 credits**
Recent research advances and issues in vitamin nutrition.

**IB 632 Community Nutrition 3 credits**
Assessment of nutritional problems and development of nutritional improvement programs for the community.

**IB 634 Minerals in Nutrition 3 credits**
Recent developments in metabolism, physiological roles, deficiencies, and toxicities of major and trace elements. Emphasis on the mechanism for homeostatic regulation of a specific mineral and its interaction with other nutrients.

**IB 635, 636 History of Nutrition I, II Each 3 credits**
Discussions on the nutritional history of Eastern and Western society.

**IB 637 Special Topics in Nutrition, Growth and Development I 3 credits**
Lectures and discussions on the function and metabolism of nutrients in relation to growth and the aging process.

**IB 638 Geriatric Nutrition 3 credits**
Discussions on problems of nutrition, health, social welfare and administration with the aging process.

**IB 639, 746 Nutrition in Diseases I, II Each 3 credits**
Integration of theoretical basis for nutritional disease care with biological science, biochemistry, and physiology.

**IB 640 Sports Nutrition 3 credits**
Topics include: (1) The basic concept of exercise physiology and energy metabolism with various exercise mode, (2) the importance of nutrition for health promotion and professional athletes.

**IB 641 Advanced Nutritional Status Assessment 3 credits**
Studies on the assessment of human nutritional status.

**IB 642 Aging and Nutrition 3 credits**
The understanding of the aging mechanism, the influence of nutrition on aging and the relationship between nutrition and diseases of the elderly.

**IB 645, 836 Special Projects in Nutrition I, II**
Special projects in nutritional sciences.

**IB 646, 838 Ecology of Food and Nutrition I, II 3 credits**
Study on the relationship between human and environment. Research method and theory establishment of the cultural and environmental effect on health problems.

**IB 651, 752 Foodservice Systems Management I, II Each 3 credits**
Application of systems management to quantity food production through the integration of appropriate production, service methods, and resources.

**IB 652 Management of Foodservice Organization 3 credits**
Advanced study of management applied to food service and hospitality organizations.

**IB 653 Foodservice Systems Management: Purchasing 3 credits**
Principles of food procurement and inventory management for foodservice systems. Emphasis on specifications and factors affecting quality.

**IB 681, 682, 683, 684, 781, 782, 783, 784 Seminar I ~VIII Each 1 Credit**
Seminars concerning current research issues
on foods and nutrition.

IB 699 Directed Research I 1 Credit

IB 701 Topics in Statistics 3 credits
Statistical methodology for experimental design and data analysis.

IB 712 Instrumental Analysis 3 credits
Discussions and experiments on the basic principles and applications of instruments for food and nutrition research.

IB 713, 714 Advanced Nutritional Physiology of Human I, II Each 3 credits
Discussion on the specific topics in human physiology necessary for the principles and procedures of nutritional care.

IB 715 Food Rheology 3 credits
Study of major factors in food properties and measurement of properties.

IB 717 Research in Traditional Foods 3 credits
Research in recipe development of traditional foods based on history and science in relation to modern eating habits.

IB 720 Advances in Carbohydrate Chemistry 3 credits
Study of structure, occurrence, properties, function of carbohydrates in nature, and chemical and enzymatic changes, application, and production of carbohydrates in food.

IB 725 Advanced Food Technology 3 credits
Recent developments in food processing and special processing methods for food resources.

IB 726 Advanced Food Sanitation 3 credits
Control methods and regulations for maintaining sanitation and quality of foods.

IB 727 Food Additives 3 credits
Recent developments on the application of newly-developed food additives.

IB 728, 821 Special Projects in Foods I, II Each 3 credits
Studies of specialized topics in food sciences.

IB 729 Research in Fermented Foods 3 credits
Principles and methods of production using microbial fermentation. Practice of planning and developing research.

IB 731 Molecular Biology 3 credits
Understanding of prokaryotic and eukaryotic genomes, structures of DNA and chromosomes, regulations of transcription, RNA processing and translation. Basic concepts of molecular cloning and recent advances in recombinant DNA technology.

IB 733 Special Topics in Advanced Nutrition
Special Topics and issues in advanced nutrition.

IB 734 Enzyme Chemistry 3 credits
Methodology on purification and characterization of enzymes related to Food and Nutrition.

IB 735, 736 Advanced Research in Nutrition I, II Each 3 credits
Special topics in advanced nutrition research for students in the doctoral program.

IB 737 Carbohydrate Metabolism 3 credits
Recent developments and research in carbohydrate metabolism.
IB 738 Lipid Metabolism 3 credits
Recent developments and research in lipid metabolism.

IB 739 Molecular Nutrition 3 credits
Understanding roles of nutrients in the regulation of gene expression and signal transduction pathways. Discussions on broad aspects of nutrient functions in cell biology, and the application of new molecular technology into nutrition research.

IB 740 Protein and Amino Acid Metabolism 3 credits
Methodologies and principles of evaluating protein quality and amino acid requirements. Discussions on the nature of amino acid essentiality, and significance of plasma free amino acid composition. Review of urea cycle regulation and metabolic pathways for specific amino acids.

IB 743, 744 Advanced Nutritional Biochemistry I, II Each 3 credits
Recent advances in metabolic and regulatory aspects of nutrition.

IB 745 Immune Response and Nutrition 3 credits
Discussions on the effect of nutrition on the immune system.

IB 750 Advanced Restaurant Management 3 credits
Current service management theories that apply to restaurant management. Discussions from the view point of general hotel and restaurant managers.

IB 751 Consumer Behavior 3 credits
The concept of the supremacy of the consumer requires an in-depth understanding of the factors that influence behavior. Topics include: Knowledge and involvement, attitudes and intentions, decision-making behaviors, classical and operant learning, cultural influences, and reference groups.

IB 753 Recent Developments in Foodservice Systems Management 3 credits
Discussions on the current issues and topics of foodservice system management.

IB 754, 755 Research in Foods I, II Each 3 credits
Special topics on advanced food science research for students in the Doctoral program.

IB 756 Production and Operations Management for Foodservice 3 credits
Principles of management applied to quantity food production with emphasis on production planning, work management, quality control, material management, and sanitation and safety.

IB 757 Foodservice Management Information Systems 3 credits
Analysis and design of management information systems for commercial and noncommercial foodservices. Topics include cost and value of information, data management, implementation of systems, and impact on foodservice organization.

IB 758, 759 Research in Foodservice Management I, II Each 3 credits
Examination of trends, problems, and research in foodservice management. Special studies on research methodology and research proposal preparation.

IB 760 Cost Controls in Foodservice System 3 credits
Review of the components of cost control systems; analysis of financial data for foodservice operations; techniques for budget planning and control.
IB 811, 812 Histology I, II Each 3 credits
The basic characteristics and properties of various organs.

IB 822 Functional and Neutraceucial Foods 3 credits
Recent studies on functional and physiological properties of food components.

IB 831, 832 Hormones in Nutrition I, II Each 3 credits
Basic concepts of hormones and their effects on the metabolic processes and homeostasis.

IB 833 Research Methods in Foodservice Management
This course covers current research topics in hospitality & tourism industry. It also presents the process and techniques for planning and designing research projects, as well as research evaluation. Special emphasis is placed on the appropriate choice of methodologies for a variety of research topics.

IB 834 Quality Management in Foodservice 3 credits
Discussions on current issues in practices and research of total quality management for customer satisfaction in foodservice industry.

IB 835 Contemporary Issues and Trends in Foodservice Management 3 credits
Focuses on research issues related to the foodservice industry and their short and long-term implications.

IB 837 Comparative Nutrition 3 credits
Discussions on the differences between human and animal nutrition.

IB 839 Special Topics in Nutrition, Growth and Development II 3 credits
Discussions on the characteristics and various nutritional problems in growth and development.

IB 899 Directed Research II 1 Credit