



**Ph.D. DEGREE
IN
HUMAN SCIENCES - EMPHASIS IN FOOD SCIENCE**

Students are required to earn six (6) CHS graduate credit hours that count toward the degree prior to graduation by attendance in one or more summer semesters in the Department or the College of Health and Human Sciences. The Ph.D. program in Human Sciences with areas of emphasis in Food Science is a competency-based research degree; satisfying the courses alone does not guarantee the degree will be awarded - the student must advance to mastery in the field of specialization.

CORE **24 CREDIT HOURS**

FOS 5205*	Food Safety and Quality (f)	3
FOS 5424*	Food Preservation (sp)	3
FOS 5936*	Selected Topics in Food Science and Technology (sp)	3
FOS 6351C*	Physical and Chemical Techniques in Food and Nutrition (f)	3
FOS 6930	Seminar in Food and Nutrition Science (1 credit per semester for three semesters) (f, sp)	3
HOE 6366	Research Best Practices in Human Sciences (f)	2
HUN 6248*	Adv in Nutr & Food Sci: Food Microbiology (Lecture & Lab) (f)	4
HUN 6911	Supervised Research (S/U)	3

* Required if have not previously been taken. If these courses have been taken, the student's committee should decide different courses (up to 16 credit hours) relevant to the student's research interest to fulfill the credit requirement.

DEPARTMENTAL ELECTIVES **minimum 3 CREDIT HOURS**

HUN 5242	Carbohydrates, Fats and Proteins	3
HUN 5243	Vitamins and Minerals	3
HUN5938	Special Topics in Nutrition: Microbiome and Nutrition	3
HUN 6248	Adv in Nutr & Food Sci: Food Immunochemistry (Lecture & Lab)	4
HUN 6248	Adv in Nutr & Food Sci: Food Protein Chemistry (Lecture & Lab)	4
HUN 6248	Adv in Nutr & Food Sci: Technical Writing	4
HUN 6940	Supervised Teaching (S/U)	1-3
HUN 6906	Directed Individual Study (S/U)	3
PET 6931	Advanced Topics: Cell and Molecular Biology	3

OUTSIDE ELECTIVES **minimum 3 CREDIT HOURS**

BCH 5745	Chemical and Physical Characterization of Biopolymers	3
BSC 5409	Biophysical Principles of Biological Techniques	3
BSC 5936	Selected Topics in Biological Sciences: Nanotechnology	2
CHM 5140	Introduction to Chemical Instrumentation	3
CHM 5154	Chemical Separations	3
CHM 5440	Physical and Chemical Kinetics	3
CHM 5585	Experimental Methods in Physical Chemistry	3
EMA 5015C	Nanomaterials and Nanotechnology	3
PCB 5936	Selected Topics in Genetics and Cell Biology: Immunology	3

The above outside elective courses are suggested; however, the course requirement can be decided by the student's committee.

STATISTICS **minimum 4 CREDIT HOURS**

EDF 5401	General Linear Model Applications	4
FAD 5700	Applied Research in Human Sciences	4

These are recommended statistics courses; however, a different statistics course relevant to the student's interests may be decided by the student's committee. Previously taken courses, cannot be repeated.

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DISSERTATION		minimum 24 CREDIT HOURS
HUN 8964r	Preliminary Doctoral Examination (P/F)	0
HUN 6980r	Dissertation (S/U)	24
HUN 8985r	Dissertation Defense Examination (P/F)	0

Minimum requirements: 58 credit hours