



Emphasis in Food Safety and Biosecurity

The curriculum prepares graduates to recognize, evaluate, and control food-borne agents and toxins. Courses emphasize the multidisciplinary nature of food biosecurity and defense research, education and training to the vitality of our communities.

“Core” requirements (14 or 16 credit hours)

Each student in the MPH Program must complete these required public health core courses:

- **Biostatistics:** [STAT 701](#) Fundamental Methods of Biostatistics (3 credit hrs)
- **Environmental health sciences:** [DMP 806](#) Environmental Toxicology (2 credit hrs)
- **Epidemiology:** 2 options:
 - a. [DMP 754](#) Introduction to Epidemiology (3 credit hrs) **OR**
 - b. [DMP 708](#) Veterinary Epidemiology (2 credit hrs) **and** [DMP 854](#) Intermediate Epidemiology (3 credit hrs) (TOTAL of 5 credit hours)
- **Health services administration:** [HMD 720](#) Administration of Health Care Organizations (3 credit hrs)
- **Social and behavioral sciences:** [KIN 818](#) Social and Behavioral Basis of Public Health (3 credit hrs)

Required Food Safety courses (13 credit hours)

- [FDSCI 501](#): Food Chemistry (3)
- [FDSCI 607](#): Food Microbiology (4)
- [FDSCI 690](#): Principles of HACCP (2)
- [FDSCI 713](#): Rapid Methods and Automation in Microbiology (2)
- [FDSCI 730](#): Multidisc Overview Food Safety and Security (2)

Electives (7 or 9 credit hours)

In addition to the above, students select their remaining courses from the following or other graduate courses as approved by the major professor, supervisory committee and the MPH Program director.

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| • FDSCI 695 : Quality Assurance of Food Products (3) | • MC 740 : Health Communication Campaigns (3) |
| • FDSCI 728 : Physical Methods of Food Analysis (2) | • STAT 704 : Analysis of Variance (2) |
| • FDSCI 731 : Food Protection and Defense – Essential Concepts (2) | • STAT 705 : Regression and Correlation Analysis (2) |
| • FDSCI 750 : Food Toxicants (GPIDEA online course taught by Iowa State) (2) | • STAT 710 : Sample Survey Methods (2) |
| • FDSCI 791 : Adv HACCP Principles (2) | • STAT 713 : Applied Linear Stat Models (2) |
| • FDSCI 815 : Advanced Food Chemistry (3) | • STAT 716 : Nonparametric Statistics (2) |
| • FDSCI 915 : Food Toxicology (2) | • STAT 717 : Categorical Data Analysis (3) |
| | • STAT 720 : Design Experiments (3) |
| | • STAT 725 : Intro to SAS Computing (1) |
| | • STAT 730 : Multivariate Stat Methods (3) |

Capstone/culminating experience (6 credit hours)

Total hrs required for MPH Degree (42 credit hours)