PhD in Food and Hospitality Systems

Degree Requirements

- Minimum of 72 hours of graduate level coursework beyond the Bachelor's degree.
- 15 hours must be at the 8000-level or above, exclusive of readings, research, problems and independent study hours.
- Maximum of 30 hours of post-baccalaureate graduate credits (exclusive of readings, research, problems and independent study hours) from a regionally accredited university may be transferred in.

While a basic goal of the Ph.D. program is to provide students with highly specialized research skills and knowledge in a particular subdivision of Food and Hospitality Systems, the faculty believe that it is important for Ph.D. students to understand the breadth of the discipline as well.

There are three tracks in the Food and Hospitality Systems (FHS) Ph.D. program: Food Science, Hospitality Management and Agricultural Systems Management. Courses required for all three tracks and those required for each track, respectively, are listed below.

Note: Tracks do not appear on transcripts or diplomas. Emphasis areas appear on transcripts.

Required Courses for Food Science, Hospitality and Agricultural Systems Management Tracks:

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#### Statistics

- STAT 7110: Statistical Software and Data Analysis 3
- or STAT 7150: Applied Categorical Data Analysis 3
- or STAT 7210: Applied Nonparametric Methods 3
- or STAT 7310: Sampling Techniques 3
- or STAT 7410: Biostatistics and Clinical Trials 3
- or STAT 7510: Applied Statistical Models I 3
- or STAT 7530: Analysis of Variance 3
- or STAT 7540: Experimental Design 3
- or STAT 7560: Applied Multivariate Data Analysis 3

#### Ethics

- PLNT_S 8010: Professionalism and Ethics 2
- or BIO_SC 8060: Ethical Conduct of Research 2
- or V_PBIO 8641: Introduction to Research Ethics 2
- or MPP 8415: Responsible Conduct of Research thru Engagement, Enactment and Empowerment NIH and other Federal Age
- or PSYCH 8910: Responsible Conduct of Research 2

#### Career Development

- AG_ED_LD 8350: College Teaching of Agriculture, Food and Natural Resources 4
- or GRAD 9010: Preparing Future Faculty I 4
- or GRAD 9020: Preparing Future Faculty II 4
- or GRAD 9050: Preparing Future Professionals for Post-Graduate Studies Careers 4
- or GRAD 9072: Science Policy and Public Engagement 3
- or GRAD 9082: Science Policy and Public Engagement 3
- or GRAD 9304: Instructional and Communication Strategies for Effective College Teaching 3

#### Food Science Track Required Courses:

- AG_S_M 7020: Agricultural Safety and Health 3
- or AG_S_M 7140: Electricity: Wiring and Equipment 3
- AG_S_M 7220: Material Handling and Conditioning 3
- AG_S_M 7320: Agricultural Equipment and Machinery 3
- or AG_S_M 7360: Precision Agriculture Science and Technology 3
- AG_S_M 7390: Optimization and Management of Food and Agriculture Systems 3
- AG_S_M 7420: Surface Water Management 3
- or AG_S_M 7460: Irrigation and Drainage 3

### Plan of Study

The plan of study, completed under the guidance of a FHS Doctoral Degree Program Committee, consists of a list of formal courses and research or problems hours. The signed D2 form listing the committee-approved courses in the student's plan of study must be turned in to the FHS Graduate Program Coordinator no later than the end of the student's third semester for submission to the Graduate School. See a Sample Plan of Study at this link: https://gradschool.missouri.edu/wp-content/uploads/2018/03/d2.pdf

#### Minimum Requirements

- Hours beyond the baccalaureate degree: 72
- Graduate level courses (excluding Problems, Research or Independent Study): 15

- F_S 9087: Seminar in Food Science (2 cr of F_S 9087 may be transferred in. F_S 9087 repeated for a total of 4 credit hours) 1
- F_S 9090: Research in Foods Science 6
- or F_S 8090: Research in Food Science 6
Dissertation Requirements

Doctoral Degree Program Committee

A FHS Doctoral Degree Program Committee must be identified by the end of the student's second semester. This committee must include at least four MU graduate faculty members, three of whom must be from the Food and Hospitality Systems Graduate Program, including the advisor chair. The advisor chair and at least one other committee member must also be members of MU Doctoral Faculty. At least one committee member must be a graduate faculty member from MU but outside the chosen track in the Food and Hospitality Systems Graduate Program.

Qualifying Exam

To fulfill the Ph.D. Qualifying Exam, a proposal of the Ph.D. dissertation research must be presented to and approved by the student's Doctoral Degree Program Committee before the start of the student's third semester. The D1 form must be submitted to the FHS Graduate Program Coordinator for submission to the Graduate School by the same time to indicate the results of this Qualifying Exam. The student's Doctoral Degree Program Committee shall determine the course of action for students who do not pass the Qualifying Exam.

Research

Students are expected to begin their research once their proposal has been approved by the FHS Doctoral Degree Program Committee at their Qualifying Exam. Students are required to conduct periodic committee meetings to update the Doctoral Degree Program Committee on his/her research progress throughout the Ph.D. program. Significant modifications of the research studies following initial approval of the proposed Ph.D. research during the Qualifying Exam must be approved by the student's Doctoral Degree Program Committee. Upon completion of the research, a dissertation based on original research must be approved by the student's Doctoral Degree Program Committee. All Ph.D. candidates are required to prepare at least one manuscript, judged acceptable by the major advisor and at least one additional member of the student's Doctoral Degree Program Committee, for submission to a refereed journal, prior to the final dissertation defense.

Comprehensive Examination Process

Exit Seminar

Immediately before the defense of the dissertation, the student must present a formal seminar on his/her research. The seminar must take place when MU is officially in session, must be announced at least two weeks prior to the scheduled date and is open to the general university audience.

Final Examination

After the seminar has been presented, a final defense oral examination will be conducted by the FHS Doctoral Degree Program Committee. The candidate should be prepared to defend his/her research and to discuss any related areas. A report of the examination (D4 form), carrying the signatures of all members of the committee, must be turned in to the FHS Graduate Program Coordinator for submission to the MU Graduate School before the deadline preceding the anticipated date of graduation. For the dissertation to be considered successfully defended, the student's Doctoral Degree Program Committee must vote to pass the student on the defense with no more than one dissenting or abstaining vote.

Admissions

Applicants are required to meet two sets of minimum qualifications for admission: the requirements of the PhD in Food and Hospitality Systems Graduate Program and the minimum requirements of the Graduate School. Because requirements vary, you must refer to the degree program's graduate admission page to learn about specific admission criteria, application deadlines, eligibility and application process. Your application materials will be reviewed by both the Graduate School and the degree program to which you've applied before official admission to the University of Missouri.