

## GRADUATE PROGRAMS AT THE DEPARTMENT OF FOOD ENGINEERING

Master of Science and Doctor of Philosophy degrees are offered in the graduate program of Food Engineering.

### GRADUATE CURRICULUM

#### M. S. in Food Engineering:

FDE	500	M.S. Thesis	NC
FDE	519	Transport Phenomena in Food Engineering	(3-0) 3
FDE	591	Seminar	NC
6 elective courses*			

Total minimum credits: 21  
Number of courses with credit (min): 7

#### Ph.D. in Food Engineering:

*If admitted by B.S. degree:*

FDE	500	M.S. Thesis	NC
FDE	519	Transport Phenomena in Food Engineering	(3-0) 3
FDE	591	Seminar	NC
FDE	600	Ph.D. Thesis	NC
13 elective courses***			

Total minimum credits: 42  
Number of courses with credit (min): 14

*If admitted by M.S. degree:*

FDE	600	Ph.D. Thesis	NC
FDE	519	Transport Phenomena in Food Engineering**	(3-0) 3
6 elective courses**, ***			
Total minimum credits: 21			
Number of courses with credit (min): 7			

\* At least one from ES 501, ES 502, ES 507, ES 509, CHE 550, FDE 561 or one equivalent course with consent of department.

\*\* will be replaced by an elective course if taken in the M.S. program.

\*\*\* At least two from ES 501, ES 502, ES 507, ES 509, CHE 550, FDE 561 or two equivalent courses with consent of department.

### GRADUATE COURSES

FDE	500	M.S. Thesis	NC	FDE	579	Food Additives, Contaminants and Toxicology	(3-0) 3
FDE	510	Total Quality Management for the Food Industry	(3-0) 3	FDE	580	Food Packaging	(3-0) 3
FDE	511	Non-Thermal Processing Technology in Food Industry	(3-0) 3	FDE	581	Biochemical Engineering	(3-0)3
FDE	515	Enzyme Engineering	(3-0) 3	FDE	582	Thermal Process Engineering	(3-0) 3
FDE	518	Advanced Process Calculations	(3-0) 3	FDE	585	Engineering Properties of Food	(3-0) 3
FDE	519	Transport Phenomena in Food Engineering	(3-0) 3	FDE	586	Supercritical Fluid Processing of Food	(3-0) 3
FDE	561	Food Engineering Analysis	(3-0) 3	FDE	587	Rheological Methods in Food Engineering	(3-0) 3
FDE	571	Advanced Food Biochemistry	(3-0) 3	FDE	589	Microwave Processing of Foods	(3-0) 3
FDE	572	Advanced Food Microbiology	(3-0) 3	FDE	591	Seminar I	NC
FDE	573	Advanced Biological Process Engineering	(3-0) 3	FDE	592	Seminar II	NC
FDE	575	Food Analysis	(3-0) 3	FDE	600	Ph.D. Thesis	NC
FDE	576	Industrial Microbiology	(3-0) 3	FDE	7XX	Special Topics in Food Engineering	(3-0) 3 or (2-2)3
FDE	578	Fabricated Foods Technology	(3-0)3	FDE	8XX	Special Studies	(4-2) NC
				FDE	9XX	Advanced Studies	(4-0) NC