GRADUATE MAJOR CHANGE BULLETIN NO. 4
Spring 2011

Faculty Senate approved 3/10/2011

The requirements and courses listed below reflect the graduate major curricular changes approved by the Catalog Subcommittee and the Graduate Studies Committee since approval of the last Graduate Major Change Bulletin. All new and revised courses are printed in their entirety under the headings Proposed and Current, respectively. The column to the far right indicates the date each change becomes effective.

Prefix	Course Number	New Revise Drop	Current	Proposed	Effective Date
M E	565	New	**--N/A--**	**Nuclear Reactor Engineering** 3 Prereq M E 461. Reactor power distribution; thermal and exposure limits; critical heat flux and pressure design; neutronic/thermal hydraulic relationships; transient/accident analysis.	8-11
M E	503	New	**--N/A--**	**Systems Design Approaches for Sustainability** 3 Prereq graduate standing. Sustainability in systems design methodologies; systems modeling and decision-making for sustainability; multidisciplinary design optimization; research topics.	8-11
Biol	576	New	**--N/A--**	**Epigenetics and Systems Biology** 3 Graduate-level counterpart of Biol 475; addition requirements. Credit not granted for both Biol 476 and 576.	8-11
Biol	569	New	**--N/A--**	**Ecosystem Ecology and Global Change** 3 Prereq graduate standing. Graduate-level counterpart of Biol 469; additional requirements. Credit not granted for both Biol 469 and 569.	8-11
ES/RP	569	New	**--N/A--**	**Ecosystem Ecology and Global Change** 3 Prereq graduate standing. Same as Biol 569.	8-11
BSysE	593	New	**--N/A--**	**Thermochemical Biorefinery**	8-11

				3 Prereq graduate standing. Thermochemical biorefinery technologies for biofuels and bioproducts; facility operations, analysis and design of integrated processes for biofuel and bioproduct production.	
Animal Sciences, revise PhD program		Revise	A minimum of ~~25~~ graded course credits is required.	A minimum of 22 graded course credits is required.	8-11
Arch	571	Restore	**-- N/A --**	**Advanced Architectural Studio II** 6 (0-12) Prereq Arch 570; graduate standing. Drawing from architectural historical and theoretical research, urban architectural design case study, research in the arts, humanities and social sciences	8-11
Neuro	592		**Research Writing and Seminar** 3 May be repeated for credit; cumulative maximum 6 hours. Written and oral communication of scientific information; formal instruction while preparing research proposals and departmental seminar.	**Research Writing and Seminar** 3 May be repeated for credit; cumulative maximum 6 hours. Written and oral communication of scientific information; formal instruction while preparing research proposals and departmental seminar. S, F grading.	8-11
Mechanical & Materials Engineering, revise certificate in Nuclear Engineering		Revise	Graduate Certificate in Nuclear Engineering students must complete a minimum of nine credits (of which six credits must be at the 500-level) from the following list of three-credit courses (courses in which a grade of B- or less is obtained may not count towards completion of the requirements): ~~M E 460 Nucelar Reactor Engineering~~ ME 461 Introduction to Nuclear Engineering ME 483 Topics in Mechanical Engineering: Nuclear Safeguards and Security ME 579 Advanced Topics in Mechanical Engineering: Nuclear Reactor Engineering	Graduate Certificate in Nuclear Engineering students must complete a minimum of nine credits (of which six credits must be at the 500-level) from the following list of three-credit courses (courses in which a grade of B- or less is obtained may not count towards completion of the requirements): ME 461 Introduction to Nuclear Engineering ME 483 Topics in Mechanical Engineering: Nuclear Safeguards and Security ME 565 Nuclear Reactor Engineering — available starting spring 2011 ME 579 Advanced Topics in	

			Chem 550 Special Topics in Nuclear Processes and Radioactive Waste Management	Mechanical Engineering: Nuclear Reactor Engineering Chem 550 Special Topics in Nuclear Processes and Radioactive Waste Management	