MASTER OF SCIENCE IN NUCLEAR ENGINEERING

The graduate program in nuclear and radiological engineering/medical physics leads to the degrees of

- · Master of Science in Nuclear Engineering,
- · Master of Science in Medical Physics,
- · Master of Science, and
- · Doctor of Philosophy.

In nuclear and radiological engineering, students with a bachelor's degree in engineering pursue the Master of Science in Nuclear Engineering degree, while students with a Bachelor of Science degree in other fields enroll for the Master of Science degree. Depending on the career objectives of the student, the Woodruff School may encourage a thesis as part of the Master of Science program. Nuclear and radiological engineering students must earn a graduate grade-point average of at least 3.0 and satisfy all remaining requirements to be certified for the master's degree.

Credit Hours

Non-Thesis requirements

Title

Code

NRE 6101	Transport Fundamentals	3
NRE 6756	Radiation Physics	3
NRE 6401	Advanced Nuclear Engineering Design	3
Select one:		3
NRE 6102	Plasma Physics	
NRE 6201	Reactor Physics	
NRE 6301	Reactor Engineering	
NRE 6757	Radiation Detection	
NRE Elective		3
Math Elective		3
Electives		12
Total Credit H	ours	30
Thesis requir	amente	
-	Cilicitis	
Code	Title	Credit
Code	Title	Credit Hours
Code NRE 6101	Transport Fundamentals	
		Hours
NRE 6101	Transport Fundamentals	Hours 3
NRE 6101 NRE 6756	Transport Fundamentals	Hours 3
NRE 6101 NRE 6756 Select one:	Transport Fundamentals Radiation Physics	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102	Transport Fundamentals Radiation Physics Plasma Physics	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201	Transport Fundamentals Radiation Physics Plasma Physics Reactor Physics	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301	Transport Fundamentals Radiation Physics Plasma Physics Reactor Physics Reactor Engineering	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757	Transport Fundamentals Radiation Physics Plasma Physics Reactor Physics Reactor Engineering Radiation Detection	Hours 3 3 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757 NRE Elective	Transport Fundamentals Radiation Physics Plasma Physics Reactor Physics Reactor Engineering Radiation Detection	Hours 3 3 3 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757 NRE Elective Math Elective	Transport Fundamentals Radiation Physics Plasma Physics Reactor Physics Reactor Engineering Radiation Detection	Hours

Code NRE 6101 NRE 6401	prise Management option (Non-thesis) Title	
NRE 6401 NRE 6756		Credit
NRE 6401 NRE 6756		Hours
NRE 6756	Transport Fundamentals	3
	Advanced Nuclear Engineering Design	3
Select one:	Radiation Physics	3
		3
NRE 6102	Plasma Physics	
NRE 6201	Reactor Physics	
NRE 6301	Reactor Engineering	
NRE 6757	Radiation Detection	
Math Elective:		3
NRE 6103	Computational Methods of Radiation Transport	
NRE/ME 6758	Numerical Methods in Mechanical Engineering	
NRE 6504	Management of the Nuclear Enterprise	3
ME/MGT 6753	Principles of Management for Engineers	3
NEM Elective:		3
Any ISYE, MGT	6000-level or higher course	
Electives		6
Total Credit Ho	ours	30
No. I F		
	prise Management option (Thesis)	Credit
oode	Title	Hours
NRE 6101	Transport Fundamentals	3
	Radiation Physics	3
Select one:	•	3
NRE 6102	Plasma Physics	
	Reactor Physics	
	•	
NRE 6201	Reactor Engineering	
NRE 6201 NRE 6301	Reactor Engineering Radiation Detection	
NRE 6201 NRE 6301		3
NRE 6201 NRE 6301 NRE 6757 Math Elective:	Radiation Detection	3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME		3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758	Radiation Detection Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering	3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT	Radiation Detection Computational Methods of Radiation Transport	
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504	Radiation Detection Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering Management of the Nuclear Enterprise	3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753 NEM Elective:	Radiation Detection Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering Management of the Nuclear Enterprise Principles of Management for Engineers	3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753 NEM Elective: Any ISYE, MGT	Radiation Detection Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering Management of the Nuclear Enterprise	3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753 NEM Elective: Any ISYE, MGT	Radiation Detection Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering Management of the Nuclear Enterprise Principles of Management for Engineers 6000-level or higher class Master's Thesis	3 3
NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753	Radiation Detection Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering Management of the Nuclear Enterprise	3