## 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	
riicaia requii	CILICITO	
Code	Title	Credit Hours
-		
Code	Title	Hours
Code NRE 6101	Title  Transport Fundamentals	Hours 3
<b>Code</b> NRE 6101  NRE 6756	Title  Transport Fundamentals	Hours 3 3
NRE 6101 NRE 6756 Select one:	Title  Transport Fundamentals  Radiation Physics	Hours 3 3
Code  NRE 6101  NRE 6756  Select one:  NRE 6102	Title  Transport Fundamentals  Radiation Physics  Plasma Physics	Hours 3 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics	Hours 3 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics  Reactor Engineering	Hours 3 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757	Title  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	Title  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	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics  Reactor Engineering  Radiation Detection	Hours 3 3 3 3 3

Nuclear Ente	rprise Management option (Non-thesis) Title	Credit
		Hours
NRE 6101	Transport Fundamentals	3
NRE 6401	Advanced Nuclear Engineering Design	3
NRE 6756	Radiation Physics	3
Select one:		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, MG	T 6000-level or higher course	
Electives		6
Total Credit H	ours	30
Nuclear Fute	unvice Management antique (Thesia)	
Nuclear Ente		
	rprise Management option (Thesis)	Credit
Code		Credit Hours
Code	Title	Hours
Code NRE 6101	Title  Transport Fundamentals	Hours 3
<b>Code</b> NRE 6101  NRE 6756	Title  Transport Fundamentals	Hours 3
NRE 6101 NRE 6756 Select one:	Title  Transport Fundamentals  Radiation Physics	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102	Title  Transport Fundamentals  Radiation Physics  Plasma Physics	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics	Hours 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics  Reactor Engineering  Radiation Detection	Hours 3
Code  NRE 6101  NRE 6756  Select one:  NRE 6102  NRE 6201  NRE 6301  NRE 6757	Title  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 Math Elective	Title  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 Math Elective NRE 6103 NRE/ME	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics  Reactor Engineering  Radiation Detection  Computational Methods of Radiation Transport	Hours 3 3 3
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757 Math Elective NRE 6103 NRE/ME 6758	Title  Transport Fundamentals Radiation Physics  Plasma Physics Reactor Physics Reactor Engineering Radiation Detection : Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering	Hours
Code  NRE 6101  NRE 6756  Select one:  NRE 6102  NRE 6201  NRE 6301  NRE 6757  Math Elective  NRE 6103  NRE/ME  6758  NRE 6504  ME/MGT	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics  Reactor Engineering  Radiation Detection  Computational Methods of Radiation Transport  Numerical Methods in Mechanical Engineering  Management of the Nuclear Enterprise  Principles of Management for Engineers	Hours
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757 Math Elective NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753 NEM Elective	Title  Transport Fundamentals  Radiation Physics  Plasma Physics  Reactor Physics  Reactor Engineering  Radiation Detection  Computational Methods of Radiation Transport  Numerical Methods in Mechanical Engineering  Management of the Nuclear Enterprise  Principles of Management for Engineers	Hours
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757 Math Elective NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753 NEM Elective	Title  Transport Fundamentals Radiation Physics  Plasma Physics Reactor Physics Reactor Engineering Radiation Detection  Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering  Management of the Nuclear Enterprise Principles of Management for Engineers	Hours
NRE 6101 NRE 6756 Select one: NRE 6102 NRE 6201 NRE 6301 NRE 6757 Math Elective: NRE 6103 NRE/ME 6758 NRE 6504 ME/MGT 6753 NEM Elective: Any ISYE, MG	Title  Transport Fundamentals Radiation Physics  Plasma Physics Reactor Physics Reactor Engineering Radiation Detection : Computational Methods of Radiation Transport Numerical Methods in Mechanical Engineering  Management of the Nuclear Enterprise Principles of Management for Engineers  T 6000-level or higher class Master's Thesis	Hours 3 3 3 3 3 3