

**PROGRAM: PH.D. IN INTERDISCIPLINARY APPLIED  
 MATHEMATICS AND MATHEMATICAL PHYSICS  
 (MATHEMATICAL PHYSICS CONCENTRATION)**

First Year Fall Semester			First Year Spring Semester		
Course	Course Name	Cr	Course	Course Name	Cr
MTSC-871	Complex analysis *	3	MTSC-863	Functional Analysis *	3
PHYS-655	Computational Methods *	3	PHYS-672	Advanced EM Theory II *	3
PHYS-665	Statistical Mechanics *	3	PHYS-676	Quantum Mechanics II *	3
	Total Credits	9		Total Credits	9

Second Year Fall Semester			Second Year Spring Semester		
Course	Course Name	Cr	Course	Course Name	Cr
MTSC-8xx or PHYS-	Math or Physics Elective +	3	MTSC-8xx or PHYS-6xx/8xx	Math or Physics Elective +	3
MTSC-8xx or PHYS-	Math or Physics Elective +	3	MTSC-8xx or PHYS-6xx/8xx	Math or Physics Elective +	3
	Total Credits	6		Total Credits	6

Third Year Fall Semester			Third Year Spring Semester		
Course	Course Name	Cr	Course	Course Name	Cr
MTSC-890	Dissertation		MTSC-890	Dissertation	3/6
	Total Credits	3/6		Total Credits	3/6

NOTE: This information is on the next page after the 4<sup>th</sup> semester

College of Mathematics, Natural Sciences and Technology  
 Department of Mathematical Sciences



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**(MATHEMATICAL PHYSICS CONCENTRATION) - Continued**

Fourth Year Fall Semester			Fourth Year Spring Semester		
Course	Course Name	Cr	Course	Course Name	Cr
MTSC-890	Dissertation	3/6	MTSC-890	Dissertation	3/6
	Total Credits	3/6		Total Credits	3/6
			Total Credits: ≥ 39		

\*Denotes a Core Requirement  
 +Denotes an elective  
 Total Core Credits = 12  
 Total Elective Credits = 18  
 Candidacy Requirement:

- Complete at least thirty (30) credits of graduate level course work beyond the master's degree
- A cumulative GPA of at least 3.0 on all graduate level course work with no grade below a C
- Complete a MS degree
- Pass PhD Qualifying Exams
- Pass PhD Foreign Language Requirement
- Submission of a research plan along with candidacy application and qualifying exam and language exam results to the School of Graduate Studies
- Capstone or Culminating Experience:
- Successful completion of at least 9 hours but not more than 18 hours of MTSC-890 dissertation
- Write and successfully defend the dissertation.