

**The curriculum for MSc Courses
at the Faculty of Basic Sciences, Tarbiat Modares University**

1st Semester

Course Title	Course Type	Number of units (theoretical + practical)	Instructor
Advanced quantum mechanics1	Required (Compulsory)	3	Dr.A.Bakouei
Advanced electrodynamics1	Required (Compulsory)	3	Dr. Z. Shomali
Advanced optics1	Optional	3	Dr. E. Irani
Total units of the semester:9			

2nd Semester

Course Title	Course Type	Number of units (theoretical + practical)	Instructor
Advanced statistical mechanics1	Required (Compulsory)	3	Dr.A.A.Asgari
Computational Physics	Required (Compulsory)	2	Dr.M. Ghodrat
Advanced Laser physics1	Required (Compulsory)	3	Dr.E.Yazdani
Seminar	Required (Compulsory)	2	Supervisor
Quantum optics1*	Optional (Compulsory)	3	Dr.E. Irani
Total units of the semester:10+3(Optional)			

* A joint course with PhD, that is offered in some semesters upon request of students based on their interest.

3rd Semester

Course Title	Course Type	Number of units (theoretical + practical)	Instructor
Advanced Optics 2*	Optional	3	Dr.A.Moshaiee
Advanced Laser Physics2*	Optional	3	Dr.E.Yazdani
Nonlinear optics1*	Optional	3	Dr.R.Malekfar
Optics and Laser Laboratory	Required (Compulsory)	1	Dr.Malekfar,Dr. r.Moshaiee,Dr. Irani,Dr.Yazda ni
M.SC. Thesis	Required (Compulsory)	6	
Total units of the semester:7+6(M.S.c. Thesis)			

* Choosing two courses from three optional courses

	Compensatory	Required Compulsory	Optional	Thesis
Total units:	0	17	9	6