



**Zarqa University**

**Faculty of Science-Department of Physics**

**Curriculum/Study plan (5)**

**Master degree (M. Sc.) of physics/Comprehensive track**

The requirements for obtaining a master's degree in physics/comprehensive track are (33) credit hours, distributed as follows:

**First: The compulsory requirements are (24) credit hours as follows**

Course code	Course name	Credit hours	Teaching method	prerequisite
0302701	Advanced Mathematical Physics 1	3	Blended Learning	-----
0302711	Advanced Classical Mechanics	3	Blended Learning	-----
0302721	Advanced Electrodynamics 1	3	Online learning	-----
0302741	Advanced Statistical Mechanics	3	Online learning	-----
0302751	Advanced Quantum Mechanics	3	Blended Learning	-----
0302752	Atomic And Molecular Physics	3	Face to Face	-----
0302771	Advanced Solid State Physics	3	Face to Face	-----
0302781	Advanced Nuclear Physics	3	Blended Learning	-----

**Second: Elective requirements of (9) credit hours chosen by the student from the following courses**

Course code	Course name	Credit hours	Teaching method	prerequisite
0302702	Advanced Mathematical Physics 2	3	Face to Face	0302701

0302705	Computational Physics	3	Face to Face	-----
0302713	Astrophysics	3	Face to Face	-----
0302722	Advanced Electrodynamics 2	3	Face to Face	0302721
0302753	Quantum Field Theory	3	Face to Face	-----
0302760	Medical Physics	3	Face to Face	-----
0302772	Material Physics	3	Face to Face	-----
0302773	Semiconductor Physics	3	Face to Face	-----
0302782	Radiation Physics	3	Face to Face	-----
0302783	Elementary Particles Physics	3	Face to Face	-----
0302790	Methods Of Experimental Physics	3	Face to Face	-----
0302791	Methodology Of Research In Physics	3	Face to Face	-----
0302793	Special Topics In Physics	3	Face to Face	-----

### Third: Thesis (9) credit hours

Course code	Course name	Credit hours	Teaching method	prerequisite
0302798	Comprehensive Exam	0	Face to Face	-----