

## Texas A&M Ph.D. in Physics curriculum summary:

Ph.D. in Physics required courses: Physics PhD requirements include completing the following minimum nine-course requirement (or with approval, equivalent courses completed previously may in some cases satisfy the requirement.)

- (1) PHYS 601 Classical Mechanics (Q = qual course\*) 3 hours
- (2) PHYS 603 Electromagnetic Theory I (Q\*) 3 hours
- (3) PHYS 606 Quantum Mechanics I (Q\*) 3 hours
- (4) PHYS 607 Statistical Mechanics (Q\*) 3 hours
- (5) PHYS 615 Methods of Theoretical Physics I (Q\*) 3 hours
- (6) PHYS 624 Quantum Mechanics II (Q\*) 3 hours
- (7) PHYS 611 Electromagnetic Theory II 3 hours
- (8 & 9) 2 additional graduate courses chosen from 2 out of the 3 distribution areas: high energy, low energy, astronomy.

Current options within the distribution areas are as follows: A) High-energy: Particle Physics (627, 628) or Nuclear Physics (625); B) Low-energy: Atomic Physics/Quantum Optics (648, 649) or Solid State Physics (617, 631, 632); or, C) Astronomy: ASTR 601/PHYS 641, ASTR 603/PHYS 643, ASTR 604/PHYS 644, ASTR 605/PHYS 645, ASTR 606/PHYS 646.

\* Qualifier courses: to become qualified for PhD studies, a student must complete the qualifier courses (first 6 courses, as designated above), and achieve an A or B in each course. There are some exceptions for advanced students; see the Graduate Student Policies for details.

### Notes:

- The Degree Plan must have the total number of hours specified by the TAMU catalog, e.g. 96 hours for Ph.D. after the B.S, or 64 after the MS. In addition to the minimum requirements above, the degree plan may contain research hours (PHYS 691), and/or other coursework that may be required for a specific dissertation topic. Such additional courses are determined in consultation with your research committee.
- Certain other limitations as to which courses may appear on the Ph.D. degree plan are specified in the TAMU catalog.
- TAMU courses that might have already appeared on an M.S. degree plan should not be listed twice. Thus in the case of the Ph.D. after M.S., the degree plan might contain a shorter list of courses than the list given above, heavily concentrated in research hours.