NEW MEXICO TECH

SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

Five Year BS/MS Physics

Passed Phys. Dept 9/23/14; Passed Faculty Senate 12/2014

The student must complete all the requirements for an M.S. in Physics, as outlined in the course catalog. The candidate for the program should apply for admission no later than end of his/her 5th semester of study. The student must have a minimum cumulative GPA of 3.0, and also specifically an average minimum GPA of 3.0 in all physics and mathematics courses to be eligible to apply to the program.

After successful admission to the 5 year program, the student will apply for graduate standing no later than the 7th semester of study, and thus be dually enrolled their senior year. During the 7th semester, the candidate should select an advisory committee and research topic for the M.S. (Students will complete and be awarded the B.S. at the end of the 4th year, and the M.S. at the end of the 5th year.) Students may apply Phys 509 to both the B.S. and M.S. degree requirements (see sample curriculum below), however all other courses must be counted toward either the B.S. (and thus completed by the 8th semester) of the M.S. The candidate M.S. student may take the department's preliminary examination as soon as the 8th semester of study, and must pass the examination at the M.S. level by the beginning of the 10th semester. For the M.S. degree, the 6 credit-hours of required electives must be non-Physics courses at the 300-level or above and not explicitly counted toward the B.S. A student may pursue either a M.S. with Thesis (6 credits) or a M.S. with Independent Study (3 credits), normally taken during the 9th and/or 10th semesters of study. A student is strongly encouraged to pursue research or take courses to apply toward the M.S. during the summer between the 8th and 9th semesters. After completing the B.S., the student may apply for a graduate teaching or research assistantship (TA or RA).

SAMPLE CURRICULUM (4th and 5th years):

Sem 7:

3 Phys 411 Thermo
3 Phys 443 Atomic & Nuclear
3 Phys 509 Methods of Theo Phys$^{\psi}$
1 Phys 579 Seminar**
3 Math course 300 level or above
3 Social Science/Humanities
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16 cr hr

Sem 8:

2 Phys 451 Sr Lab
3 Phys 508, 510 or 518**
1 Phys 579 Seminar**
3 Math course 300 level or above
6 Electives for B.S.
(3 Graduate electives for M.S.)**,$^{\alpha}$

15(18$^{\alpha}$) cr hr

----------B.S. Complete----------

Summer Semester**:

3 Graduate electives
3 Research
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6 cr hr

Sem 9**:

2 Phys 501 Grad Comm
3 Phys 505 or 521 Cont. Mech or Adv. Dyn.
1 Phys 579 Seminar
3 Phys 581, 591 or course work
3 out-of-dept Elective
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12 cr hr

Sem 10**:

2 Phys 502 Grad Comm
3 Phys 508, 510 or 518
1 Phys 579 Seminar
3 Phys 590 or 591 Ind. St or Thesis
3 out-of-dept or Phys elective
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12 cr hr

----------M.S. Complete----------

$^{\psi}$ -- Dually counted toward B.S. and M.S.
$^{\alpha}$ – Only encouraged if summer residence is not feasible.
** -- Counted toward M.S.