

LEARNING OUTCOMES: PHYSICS, PHD

Learning Outcomes for the degree of Doctor of Philosophy in Physics

Illinois Physics PhD graduates will have:

1. a firm foundation in core physics, math, and current physics research topics;
2. an ability to design and conduct original experiments, model physical phenomena, and analyze and interpret data;
3. an ability to work collaboratively with a diverse team;
4. a mastery of the concepts, techniques, and literature associated with the student's specific research subfield (e.g., theoretical condensed matter physics, experimental high energy physics, etc.);
5. an ability to teach and mentor others effectively;
6. an ability to communicate—both orally and in writing—scientific topics effectively to specialists in the student's research subfield, to scientifically literate non-specialists, and to the general public(outreach);
7. an understanding of the student's professional and scientific ethical responsibilities;
8. an ability to identify important scientific problems and to use modern experimental, computational, and/or analytical techniques to solve scientifically and societally relevant problems.