

# Ph.D. in Electrical Engineering

Ph.D. students earn at least 60 post-baccalaureate credits, including at least 18 credits of dissertation work. In progressing toward this degree, the student must pass the following examinations:

1. A written departmental Graduate Study Qualifying Examination administered to all M.S. and Ph.D. students in their first year of work.
2. A comprehensive examination to be taken within two years of the qualifying examination and after completing two-thirds of their total coursework.
3. A final oral examination and defense of a dissertation based on the student's research.

There is no foreign language requirement for the degree.

## Degree requirements--60 credits total:

- ≤ 28 credits Doctoral Thesis (EELE 690), with a minimum 18 credits.
- ≥ 32 course credits that include:
  - 2 credits Scientific Communication and Proposal Development (ENGR 650), taken just before the comprehensive examination
  - ≥ 3 credits Advanced Math, Numerical Methods, or Statistics (committee approved)
  - ≥ 27 advisor-approved credits with all graded credits having earned a B or better.
  - ≤ 9 credits at 4xx level

Notes:

- All credits must also meet the following conditions:
  - Regardless of how many credits are applied from a previously earned master's degree, the Ph.D. program of study must include at least 9 credits of major courses taken
  - at Montana State University (ECE-specific exception granted by Grad School).
  - All Ph.D. credits no more than ten (10) years old at time of graduation (this limit does not apply to courses counted from a previously earned master's degree).
  - ≤ 6 credits *Independent Study* (EELE 592).
  - ≤ 3 credits pass/fail, excluding dissertation.
  - ≤ 9 credits challenged.
  - No credits of 488, 489, 490, 492, 494, 498, or 589 are allowed.

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| ENGR 650   | Scientific Communication and Proposal Development | 2         |
| Advanced Math, Numerical Methods or Statistics Course (committee approved) |   | 3         |
| Doctoral Thesis (EELE 690)   |   | 18        |
| Graded Coursework (27 credits)   |   | 27        |
| Other Graduate Courses or additional Doctoral Thesis credits               |   | 10        |
| <b>Total Credits</b>   |   | <b>60</b> |