

Engineering

College of Engineering and Mines
(907) 474-7241
www.uaf.edu/engineer/cegrad.htm

Ph.D. Degree

Minimum Requirements for Degree: 36 credits

Engineers use knowledge of the mathematical and natural sciences to develop economical uses of the materials and forces of nature for human benefit. The professional practice of engineering requires sophisticated skills, use of judgment and exercise of discretion. The basic education necessary for the professional practice of engineering is provided by the engineering bachelor and master's degrees. Doctoral-level education requires independent research that generates fundamental advances in technology and discovers new knowledge for the benefit of society. Engineering Ph.D. degrees provide leadership in scientific research, academia and industrial research and development. The Ph.D. degree in engineering draws on the combined strength of the College of Engineering and Mines and offers opportunities for engineers at other UA campuses to participate. Doctoral research will usually focus on one of these engineering areas: arctic, civil, electrical, engineering management, environmental or mechanical.

Graduate Program—Ph.D. Degree

Concentrations: Arctic, Civil, Electrical, Engineering Management, Environmental, Mechanical

1. Complete the following admissions requirements:
 - a. Complete either a B.S. or M.S. degree in engineering.
 - b. Complete a master's degree in engineering or a closely related field.
 - c. Submit GRE scores.
2. Complete the general university requirements (page 168).
3. Complete the Ph.D. degree requirements (page 172).
4. As part of the Ph.D. degree requirements, complete the following:
 - a. Complete at least 18 credits of course work beyond the M.S. degree.
 - b. Complete and pass a written and oral comprehensive examination.
 - c. Complete and submit a written thesis proposal for approval.
 - d. Complete a research program as arranged with the graduate advisory committee.
 - e. Complete a thesis that is substantial contribution to the body of knowledge in engineering and pass an oral defense of thesis.
5. Minimum credits required36

Note: Page numbers refer to the UAF 2005-2006 academic catalog, which can be viewed online at www.uaf.edu/catalog/.